DOCUMENT RESUME

ED 457 617 EC 308 623

TITLE	The Accessible Future.
INSTITUTION	National Council on Disability, Washington, DC.
PUB DATE	2001-06-21
NOTE	145p.
AVAILABLE FROM	National Council on Disability, 1331 F St., NW, Suite 1050, Washington, DC 20004-1107. Tel: 202-272-2004; Fax: 202-272-2022; e-mail: mquigley@ncd.gov; Web site: http://www.ncd.gov.
PUB TYPE	Information Analyses (070)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	*Accessibility (for Disabled); Administrator Role; Adults; *Civil Rights Legislation; *Compliance (Legal); *Disabilities; Federal Programs; *Internet; Law Enforcement; Leadership; *World Wide Web
IDENTIFIERS	*Americans with Disabilities Act 1990; *Rehabilitation Act 1973 (Section 504)

ABSTRACT

The fourth in a series on implementation and enforcement of major civil rights laws relating to Americans with disabilities, this report looks at how such enforcement relates to electronic and information technology. As used in this report, Electronic and Information Technology (E&IT) particularly involves the Internet, the World Wide Web, and select information/transaction machines. The study analyzed all relevant statues, regulations, and case law bearing on the scope and enforcement of disability civil rights laws, interviewed key federal officials involved in the process of making E&IT accessible, reviewed federal documentation of accessibility policies and practices, and analyzed nongovernmental reports and studies of E&IT accessibility. Findings indicate that individual leadership and commitment on the part of officials and staff, particularly federal agencies, largely accounts for the relative success in implementing pro-accessibility measures. A corollary finding is that institutionalization of these practices and policies remains tenuous but is both necessary for and aided by the emergence of new leadership. Ten recommendations are made, including: (1) incorporate E&IT accessibility into the agency planning and government-wide planning processes at all levels; (2) review the federal contracting process to encourage diffusion of accessibility; and (3) establish federal Web site quality control. (Contains 65 references.) (CR)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 457 617

The Accessible Future

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

National Council on Disability

June 21, 2001

EC 308623

BEST COPY AVAILABLE

National Council on Disability
1331 F Street, NW, Suite 1050
Washington, DC 20004-1107

The Accessible Future

This report is also available in alternative formats and on NCD's award-winning Web site (www.ncd.gov).

Publication date: June 21, 2001

202-272-2004 Voice
202-272-2074 Text Telephone
202-272-2022 Fax

The views contained in the report do not necessarily represent those of the administration, as this document has not been subjected to the A-19 executive branch review process.

NATIONAL COUNCIL ON DISABILITY

An independent federal agency working with the President and Congress to increase the inclusion, independence, and empowerment of all Americans with disabilities.

Letter of Transmittal

June 21, 2001

The President
The White House
Washington, DC 20500

Dear Mr. President:

On behalf of the National Council on Disability (NCD), I am pleased to submit a report entitled The Accessible Future. The report was developed with the advice of NCD's Tech Watch federal advisory committee, a group of experts in technology and disability from around the country.

The rapid advances in our nation's electronic information and technological capability are inspiring. In this successor era to the Industrial Age, information is more and more the principal commodity of commerce, and technology, ranging from the computer to the information kiosk, from the electronic message board to the DSL line, is more and more the medium for transmission, storage, and manipulation of that information. Access to information technology is increasingly the arbiter of success and the source of opportunity in education and employment.

For America's 54 million people with disabilities, however, access to such information and technology developments is a double-edged sword that can release opportunities or sever essential connections. On the one hand, such developments can be revolutionary in their ability to empower people with seeing, hearing, manual, or cognitive impairments through alternative means of input to and interaction with the World Wide Web, information transaction machines, and kiosks. On the other hand, electronic information and technological developments can present serious and sometimes insurmountable obstacles when, for example, basic principles of accessibility or universal design are not practiced in their deployment.

By and large, federal enforcement of key laws (i.e., the Americans with Disabilities Act, Section 255 of the Telecommunications Act of 1996, and Section 508 of the Rehabilitation Act of 1973, as amended) as it relates to electronic and information technology (E&IT) is in its earliest stages. In this report, E&IT specifically involves the Internet, the World Wide Web, and select information/transaction machines.

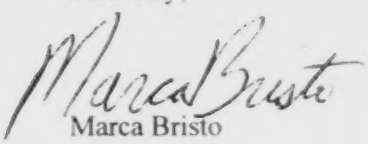
To ensure that the new Information Age includes all Americans in the bounty of opportunities that are being created, NCD has taken a prospective look at the laws related to accessible electronic and information technology as an emerging civil rights concept. In this respect, NCD has examined the status of those federal entities responsible for implementing laws that protect the rights of persons with disabilities that relate to accessible electronic and information

1331 F Street, NW ■ Suite 1050 ■ Washington, DC 20004-1107
(202) 272-2004 Voice ■ (202) 272-2074 TTY ■ (202) 272-2022 Fax ■ http://www.ncd.gov

technology. Included in this report are public policy interventions that we recommend as part of an overall strategy to make the electronic bridge to the 21st century available to all Americans.

Our recommendations are in line with the focus of your New Freedom Initiative's emphasis on expanding the use and application of technology by people with disabilities at home, at work, and throughout the course of their daily lives. NCD stands ready to work with you and stakeholders outside the government to see that the agenda set out in the attached report is implemented.

Sincerely,



Marca Bristo
Chairperson

(The same letter of transmittal was sent to the President Pro Tempore of the U.S. Senate and the Speaker of the U.S. House of Representatives.)

National Council on Disability Members and Staff

Members

Marca Bristo, Chairperson
Hughey Walker, First Vice Chairperson
Kate Pew Wolters, Second Vice Chairperson

Yerker Andersson, Ph.D.
Dave N. Brown
Edward Correia
John D. Kemp
Audrey McCrimon
Gina McDonald
Bonnie O'Day, Ph.D.
Lilliam Rangel-Diaz
Debra Robinson
Gerald S. Segal
Ela Yazzie-King

Staff

Ethel D. Briggs, Executive Director
Jeffrey T. Rosen, General Counsel and Director of Policy
Mark S. Quigley, Director of Communications
Kathleen A. Blank, Attorney/Advisor
Gerrie Drake Hawkins, Ph.D., Program Specialist
Martin Gould, Ed.D., Research Specialist
Pamela O'Leary, Interpreter
Allan W. Holland, Accountant Officer
Brenda Bratton, Executive Secretary
Stacey S. Brown, Staff Assistant
Carla Nelson, Office Assistant
Edward J. Heaton, Fellow

Acknowledgments

This report is the product of a team effort and incorporates the work of many people. First and foremost, the research and interviews were conducted, and a report to the National Council on Disability (NCD) prepared, through a contract with Steve Mendelsohn. Steve Mendelsohn is a lawyer, a policy researcher, and a creative writer about information technology.

Second, the task of assisting NCD in reviewing and commenting on the analysis, conclusions, and recommendations in the final report was handled by members of Tech Watch. NCD wishes to express its appreciation to the following Tech Watch members who participated in the development of this report: Bonnie O'Day (chair), Debbie Cook, Kelly Pierce, and Paul Schroeder.

While the views contained in the report do not necessarily represent those of the Administration, NCD would also like to thank the people who gave of their time and agreed to participate in the development of this report. Special acknowledgment goes to the staff of the Equal Employment Opportunity Commission, the Department of Education, the Federal Communications Commission, the Architectural and Transportation Barriers Compliance Board (Access Board), the Department of Justice, the General Services Administration, and the other federal agencies that not only answered many questions but gathered documents and shared data with the research team. In addition, they reviewed preliminary drafts of the contents of this document for technical accuracy.

Contents

Executive Summary 1
Key Findings 2
Recommendations 8

Chapter I
Introduction and Overview 17

Chapter II
A Brief History of Information and Technology Accessibility 31

Chapter III
The Legal Framework of Information Technology Access Rights 43

Chapter IV
Current Status of Accessibility Implementation and Enforcement 61

Chapter V
Findings 95

Chapter VI
Recommendations 111

Endnotes 131

Appendix
Mission of the National Council on Disability 137

This report is the fourth in a series of civil rights monitoring studies designed to evaluate the effectiveness of major civil rights laws bearing on the lives of Americans with disabilities. Previous reports in the series have examined the implementation of the Americans with Disabilities Act, the Individuals with Disabilities Education Act, and the Air Carrier Access Act.

Executive Summary

In the currency of daily life, what is more important yet more taken for granted than access to information? But for many people with disabilities, the information access and exchange that most of us take for granted is difficult or impossible, or can be achieved only with the intervention of third parties or through the use of Electronic and Information Technology (E&IT).[1] The reasons people with disabilities lack access to information in our society are perhaps more significant and certainly more within our control than the lack itself. The explanation increasingly lies not in disability, but in the design of the technology that mediates our access to and use of all types of information.

For Americans generally, the expectation of access to information is taken for granted, almost to the point of being considered a right. Who would question that in America we advertise job openings so the broadest range of qualified people may have the opportunity to compete for them? We attach such importance to timely notice from government regarding its decisions about our lives—denial of a disability claim, demand for additional taxes, granting of a driver's license—that our rights to such information are enshrined in law, even reaching the status of constitutional due process. And we recognize that information from and about government is essential to the functioning of our democracy and to the individual's exercise of the

---

[1] Information technology (IT) is known by various names in its application to the lives of people with disabilities. Such terms as "adaptive equipment," "assistive technology," and "electronic and information technology" all have their place as subsets or as extensions of what we commonly think of as E&IT. "Adaptive equipment," a general term with no specific statutory definition, describes any sort of modification to technology, including design changes or add-ons, that make it more accessible to or usable by people with disabilities. Assistive technology (AT), a statutory term deriving from the Technology-Related Assistance for Individuals with Disabilities Act of 1988, includes both AT devices and services. An AT device is any item or system "that is used to increase, maintain, or improve functional capabilities of individuals with disabilities." E&IT as defined in the implementing regulations for Section 508 of the Rehabilitation Act is specific to the communications and information environment and refers to the broad range of hardware, software, and other components making up this environment.

responsibilities of citizenship. How outraged would we be if the opportunity to compete for the promotion were not posted, if the grant or denial of our driver's license were never made known, or if the text of official pronouncements were not published?

No one would dispute that people with disabilities have the same right and need for information everyone else has. Paradoxically, at the very time when many people comfortably assume that technology is steadily bringing people with disabilities more opportunities for access than they have ever known before, this same technology (coupled with the attitudes and expectations of those who use it) may in many cases be reinforcing patterns of exclusion and isolation.

This report looks at federal enforcement of key laws (i.e., the Americans with Disabilities Act [ADA], Section 255 of the Telecommunications Act of 1996, Section 508 of the Rehabilitation Act, as amended) and how such enforcement relates to electronic and information technology. As used in this report, E&IT particularly involves the Internet, the World Wide Web, and select information/transaction machines.

Key Findings

It is clear from our documentary and empirical research that individual leadership and commitment on the part of officials and staff, particularly federal agencies, largely accounts for the relative success, particularly internally, in implementing pro-accessibility measures. A corollary finding is that institutionalization of these practices and policies remains tenuous but is both necessary for and aided by the emergence of new leadership.

- The report documents some of the steps agencies have taken to enhance E&IT accessibility that are worthy of emulation.

- The adverse and predictable results of E&IT inaccessibility on the lives of people with disabilities constitute discrimination, albeit unintentional, where technology that could substantially reduce the disparity exists but is not used.

- Existing civil rights laws appropriately take costs into account in determining whether particular E&IT-oriented accommodations or accessibility strategies are too costly. But they do so in ways that accentuate the size and visibility of such costs while concealing the costs of access denial.

- The current legal framework for E&IT accessibility is actually a patchwork of laws covering certain categories of technology in some settings, other categories in other settings, but nowhere reflecting an overview or comprehensive assessment of either the issues or the solutions.

- Without partnership with government and consumers, the marketplace is not well suited to redressing the E&IT access gap on its own. Normal competitive pressures do not operate to encourage fully accessible design of mainstream E&IT products, though the latent demand for such devices is considerable.

- Changes in technology and in the interpretation of all civil rights laws emanating from the courts will require the rethinking of both our definition of E&IT and our approach to advocacy on behalf of its heightened accessibility.

Nature of the Problem

Recent and frequent discussions of the "digital divide" problem have demonstrated the existence and consequences of major disparities in our society between information haves and have-nots. The harm attributable to the information gap is severe, both for those denied opportunity and

participation as a result of it and for society as a whole. While Americans with disabilities can all too often be counted on the have-not side of the information and information access equation, the reasons and remedies for this exclusion are not so well or widely understood.

A few examples drawn from our everyday technology and experience illustrate this point. The cellular telephone which has brought so much convenience to so many has also created new barriers to telecommunications access for people who are deaf or hard of hearing because such phones have largely lacked hearing aid compatibility. Banks that once employed tellers to serve their customers now rely on ATM machines, telephone service lines, and the Internet. Each of these information technologies poses severe access barriers for people with various disabilities. People who cannot see the information and prompts on the screen are effectively barred from using automated teller machines (ATMs). People who cannot enter long strings of account or card numbers before voice response systems "time out" are prevented from using all kinds of automated customer service lines. And people who cannot use a mouse may be precluded from accessing many online applications and opportunities in the commercial sector.

As isolating as these limitations are, their impact is all the more frustrating because they are largely needless. If design principles and technological capabilities did not exist for making our E&IT accessible to persons with disabilities, regrets might be in order. However, such techniques for the most part do exist and can usually be implemented at little cost, with minimal disruption to industry, commerce, and other technology users. Questions thus arise about why such enhancements are not more widely utilized and what can be done to bring about their use.

One part of the answer to these questions can be found in law. The civil rights provisions discussed in this report are among the methods chosen by society to help minimize the information access gap between people with disabilities and people without disabilities. In the end, though, laws cannot do what people resist.

Access to Electronic and Information Technology as a Civil Rights Concept

This civil rights concept of access to E&IT forms part of the requirements of three major federal laws: ADA, the Federal Communications Act, and the Rehabilitation Act of 1973, as amended. In this study, E&IT refers to such technology. The term E&IT, used in Section 508, derives from the Clinger Cohen Act of 1996, the major statute dealing with Federal Government information resources and information management practices.

Although E&IT is a relatively new and perhaps unfamiliar term to some, we believe it will become the predominant term used in discussions of information technology access rights. The range of devices falling within the definition of E&IT is inclusive, encompassing all equipment, software, and Web sites used for creation, storage, transmission, or manipulation of information and data. Our major focus here will be on computers (including software and peripherals), telecommunications equipment, ATM machines, and information kiosks (including Web-based kiosks), and other Internet Web sites and resources.

The concepts and issues dealt with in this report are likely to move to the center of our attention and concern as technology becomes an increasingly fundamental tool in our daily lives and as information itself increasingly becomes the medium and commodity of exchange in our society.

Roadmap of the Report

The research was conducted to answer three basic questions:

1. Is access to E&IT by Americans with disabilities sufficiently fundamental to rise to the level of a civil right?

2. Which laws establish civil rights protections around E&IT access and how are those laws being applied and enforced?

3. What changes in law or practice would be most effective in fulfilling the goals of E&IT access equality for all Americans?

Chapter I sets out a framework for understanding the issues surrounding E&IT access and for understanding why these issues are important. It explores the demographic, economic, and equity issues associated with information inaccessibility for people with disabilities; explains that the constituency for E&IT accessibility is not limited to people with sensory disabilities; and discusses the implications of this subject for society as a whole, as technology changes and our population ages.

Chapter II presents a historical overview of the development of accessibility concepts and laws. It examines the origins and development of the concept of accessibility in connection with the built environment and traces the application of this concept to information. It then describes evolutionary changes in communications and information technology that have brought about the elaboration of new legal models for advancing the E&IT accessibility concept. This chapter carries through to the present, where access to information technology ranging from computers to kiosks, Web pages to electronic building directories, is tantamount to access to information itself.

Chapter III explains the major current legal provisions bearing on this subject. These include the "reasonable accommodations," "effective communications," and "auxiliary aids and services" provisions of the ADA; the telecommunications equipment, customer premises equipment, and telecommunications services accessibility/compatibility requirements of Section 255 of the Communications Act; and the accessible E&IT procurement and use by federal agencies requirements of Section 508 of the Rehabilitation Act.

The chapter examines the ways in which each statute bears on E&IT accessibility and draws on statutory, regulatory, and case law sources to assess the role of each law.

Chapter IV analyzes and documents the administration and implementation of these laws by the responsible federal agencies. It begins by discussing the accessibility of information sources about the law. It then reviews the extent and quality of documentation generated by the enforcement agencies concerning the E&IT accessibility potential under each law, including important new forms of documentation such as the Department of Justice's Section 508 federal agency self-evaluation reporting system.

Next the chapter analyzes nondocumentary aspects of enforcement including elements of agency culture relating to case finding, issue prioritizing, complaint handling, and other matters.

This is followed by discussion of the agency strategic planning process as a vehicle for implementing long-term and accountable E&IT accessibility policies and practices. The chapter concludes with a discussion of the current and potential role of federal grants and contracts for providing goods, services, and information to the public (including programs ranging from Medicare and Medicaid to one-stop employment services) as sources of authority for extending E&IT accessibility requirements beyond federal agencies.

Chapter V sets forth the major findings of the report. It sets forth observations and conclusions based on interviews and conversations with agency officials, technology users, and advocates concerning how and why some federal agencies have been more successful than others in implementing information technology access rights.

The last section of this report, **Chapter VI,** offers detailed recommendations for implementing and enhancing current laws and practices to improve the accessibility of the nation's information infrastructure, and the implementation of the relevant civil rights laws. The recommendations are as follows:

Recommendations

1. Incorporate E&IT Accessibility into the Agency Planning and Government-Wide Planning Processes at All Levels

1.1 *By presidential executive order, promulgate and implement a national E&IT accessibility policy.*

1.2 GPRA

Utilizing the opportunities afforded by the planning process engaged in by federal agencies under the Government Performance and Results Act (GPRA), all agencies with responsibility in the civil rights area should be required to incorporate goals, objectives, methods, and outcome criteria for development and use of accessible E&IT in their GPRA plans.

1.3 Information Policy and Information Management

All information planning and E&IT policy development should include and document due attention to the ways accessibility considerations will be integrated into agency policies, practices, and decisions. Appropriate guidance should be provided by the Office of Management and Budget (OMB) concerning the means for documenting this integration.

1.4 Government-Wide Information Planning

To the degree the Federal Government develops and implements government-wide policies concerning the use of E&IT, such policies and requirements must likewise provide for integration of accessibility goals and standards into all activities and decision making.

1.5 Federal Employee Training

All federal initiatives aimed at upgrading the skills of the federal workforce should include provision for supplementary training and resources in those cases where the use of assistive technology or other factors alters or individualizes the training process for employees with disabilities.

1.6 Alternative Measures When E&IT Access Is Not Possible

Agency strategic and operational plans should include provisions for how information access will be facilitated and assured in those cases where accessible E&IT is not available.

2. Review the Federal Contracting Process to Encourage Diffusion of Accessibility

2.1 Grants and Contracts

With appropriate guidance from the General Services Administration (GSA), OMB, or other pertinent authorities, each agency should review the entire range of contracts and grants under which it administers and distributes federal funds to ensure that all possibilities that the law allows for encouraging or requiring E&IT accessibility practices on the part of contractors or grantees are fully utilized.

2.2 Model Contract Language

The Federal Government should develop model contract language for use in holding federal funds recipients to the highest possible standards of accessibility in their nonincidental use of E&IT.

2.3 Contractor and Grantee Technical Assistance

The government should ensure that all contracts subject to accessibility requirements include provisions for availability of appropriate technical assistance to those called upon to meet accessibility expectations.

3. Establish Federal Web Site Quality Control

3.1 Auditing Federal Web Sites

Individual agencies and the Department of Justice (DOJ) should develop a system for random periodic audit of Web sites to ensure that standards of accessibility are being maintained.

3.2 Automate the Review Process

The government should seek to validate and deploy techniques for minimizing labor intensity of Web site maintenance.

4. Systematically Address the Question of Cost-Effectiveness

4.1 Presidential Commission

The President should appoint a national commission, including representatives of industry, government, and the disability community as well as economists and demographers, to comprehensively study and report on the nature of all costs and benefits associated with both accessibility and inaccessibility of E&IT.

4.2 White House Conference

As a kickoff to the work of the national commission, a White House summit on accessibility should be convened. This high-level summit should bring together representatives of all the key sectors—business, the disability community, government, and researchers—to identify

opportunities for effective and innovative partnerships in accessibility policy, planning, research, and implementation throughout our economy and society.

5. Involve Consumers in the Accessibility Process

5.1 Consumer Advisory Panels

Agencies should be encouraged to appoint consumer advisory panels to advise and assist them in their efforts to achieve E&IT accessibility for themselves and for their constituencies.

5.2 Consumer Support to Industry

The Federal Government, in partnership with the E&IT industry, should investigate means for training, positioning, and appropriately remunerating end-users with disabilities to assist industry to develop effective accessibility strategies, to anticipate access issues associated with new technologies or designs, and to test and evaluate prototype devices and systems.

6. Enrich the Available Resources for Implementation of Section 508

6.1 Additional Guidance

GSA, the Access Board, OMB, and the Federal Acquisition Regulations Council need to undertake urgent collaboration to identify the key unresolved implementation issues and provide meaningful guidance so far as the law and their discretion permit.

6.2 Undue Burden Auditing

A system for periodic auditing of agency undue burden filings should be developed.

6.3 Verification of Agency Self-Evaluation Questionnaires

DOJ should develop a procedure for verifying agency self-reports concerning their levels of and progress toward E&IT accessibility.

6.4 Compulsory Technical Assistance

Procedures should be developed for compelling agencies with prolonged and serious 508 compliance problems to accept technical assistance targeted to their areas of weakness.

6.5 Litigation Posture

DOJ should indicate how it will proceed in situations where it is called upon to defend a federal agency in court against a suit brought under 508 where DOJ possesses knowledge that the agency is out of compliance with Section 508.

6.6 Reduce the 508 Exemptions Granted for Intra-Federal-Agency Contracts

DOJ should clarify that when the Government Printing Office (GPO) enters into contractual relationships with executive branch agencies that would subject it to the requirements of Section 508 if GPO were not an exempt congressional agency, GPO is required to comply with the requirements of Section 508 in its fulfillment of tasks under such contracts.

7. Record-Keeping and Data Collection

Efforts should be immediately instituted to develop, field test, disseminate, and analyze appropriate data collection and reporting instruments.

8. Statutory Review

In conjunction with or as an element of the work of the commission proposed under Recommendation 4.1, the President and Congress should establish a joint blue-ribbon

commission (or should designate an existing entity, such as the National Council on Disability [NCD]) to examine barriers to effective implementation of E&IT accessibility that may exist in current federal laws, and to recommend changes in law that will foster E&IT accessibility in the public and private sectors.

9. Reinvigorate the Quality and Focus of ADA Enforcement

9.1 E-Commerce, Public Terminals, and the Internet

Through suitable regulations, interpretive guidance, or case initiation, DOJ should take immediate and meaningful steps to set forth its views concerning the applicability of Title III to the Internet.

DOJ should also promulgate standards and requirements for the accessibility of public terminals including electronic building directories, point-of-sale card readers, library terminals, and similar devices.

9.2 EEOC

The Equal Employment Opportunity Commission (EEOC) should update its technical assistance and advisory materials for private sector employers covered by Title I of the ADA to reflect the placing of a high priority on E&IT accessibility, to explain the meaning and importance of this concept in ways that clarify how it differs from and affects the reasonable accommodation model, and to expand lists provided to employers of organizational and technical assistance resources to include entities and programs that specialize in E&IT accessibility.

The EEOC should also issue a guidance on the interaction between Section 508 and Section 501.

10. Intensify Monitoring and Enforcement Under Section 255

10.1 FCC Enforcement

The Federal Communications Commission (FCC) should indicate what features and functions of the forthcoming new generation of wireless telecommunications/customer premises equipment it regards as capable of being made fully accessible under current conditions.

10.2 Remedies for Violation of Section 255

The FCC should issue a legal opinion concerning how it would react and what position it would take if a consumer attempted to bypass the Section 255 complaint process by bringing suit in federal court for discrimination under the "common carrier" provisions of the Federal Communications Act.

10.3 Market Monitoring Reports

In conjunction with the Access Board, the FCC should institutionalize regular, periodic preparation and publication of the telecommunications Market Monitoring Report.

10.4 Definition of Covered Telecommunications Services

The FCC should formally indicate the results of its inquiries and deliberations into the permissible scope of Section 255's coverage of telecommunications services. If the Commission determines that it has the legal authority to include so-called "information service" under the scope of Section 255's coverage of telecommunications services, it should immediately proceed to institute the rulemaking process needed to accomplish this clarification. If the FCC determines it lacks legal authority to do this, it should join with others to support remedial legislation.

Conclusion

We live in what is called "the information society." In this successor era to the Industrial Age, information is more and more the principal commodity of commerce. Access to E&IT is more and more the arbiter of success and the source of opportunity in education and employment. Under these circumstances, it should not be surprising that access to information and to the technology generating, transmitting, and storing it has become a civil rights issue for many people with disabilities and for our society. As the importance of electronic and information technology access grows in the way we conduct our lives, in the choices we make, and in the decisions others make about us, the importance of this issue can only grow. We must ensure that all Americans can participate in the information society of the 21st century. This report represents the best effort from NCD and E&IT consumers with disabilities in providing a coherent set of recommendations, strategies, and activities that, if implemented, will advance a better quality of life for all Americans who use E&IT.

Chapter I

Introduction and Overview

A. Context for This Report

This report is the fourth in a series of civil rights monitoring studies designed to evaluate the implementation and enforcement of major civil rights laws bearing on the lives of Americans with disabilities. Previous reports in the series have examined the implementation of the Americans with Disabilities Act (ADA), the Individuals with Disabilities Education Act, and the Air Carrier Access Act.[1] Future reports will focus on the Fair Housing Amendments Act and Section 504 of the Rehabilitation Act.

This report is submitted to the President and Congress by the National Council on Disability (NCD). NCD is an independent federal agency with 15 members appointed by the President of the United States and confirmed by the Senate. The overall purpose of NCD is to promote policies, programs, practices, and procedures that guarantee equal opportunity for all individuals with disabilities, regardless of the nature or severity of the disability, and to empower individuals with disabilities to achieve economic self-sufficiency, independent living, and inclusion and integration into all aspects of society. NCD was initially established in 1978 as an advisory board within the Department of Education (Public Law 95-602). The Rehabilitation Act Amendments of 1984 (Public Law 98-221) transformed NCD into an independent agency.

NCD plays a major role in developing disability policy in America. In fact, NCD originally proposed what eventually became the ADA. NCD's present list of key issues includes improving personal assistance services, promoting health care reform, including students with disabilities in high-quality programs in typical neighborhood schools, promoting equal employment and

community housing opportunities, monitoring the implementation of ADA, improving Information technology (IT) and telecommunication, improving assistive technology (AT), and ensuring that persons with disabilities who are members of diverse groups fully participate in society.

As part of its technology research agenda, NCD established a community-based, cross-disability consumer task force on technology in January 1995. Known as Technology Watch (Tech Watch), the 11-member federal advisory committee provides information to NCD on issues relating to emerging legislation on AT and electronic and information technology (E&IT) and helps monitor compliance with civil rights legislation, such as Section 508 of the Rehabilitation Act of 1973, as amended.

This study differs from the previous reports in the civil rights monitoring series in that instead of examining a single statute, it focuses on an overarching concept embracing several statutes. This civil rights concept of access to E&IT forms part of the requirements of three major Federal laws: the ADA, the Federal Communications Act, and Section 508 of the Rehabilitation Act of 1973, as amended.

More specifically, this report looks at federal enforcement of key laws (i.e., the ADA, Section 255 of the Telecommunications Act of 1996, Section 508 of the Rehabilitation Act, as amended) and how such enforcement relates to E&IT. E&IT specifically involves the Internet, the World Wide Web, and select information/transaction machines.

This report addresses the extent to which, under these and other laws, information access may be considered a civil right and how such a right can be implemented and enforced. The concepts and issues dealt with in this report may initially be unfamiliar to some readers, but they are likely to move to the center of our attention and concern as E&IT becomes an increasingly fundamental tool in our daily lives and as information itself becomes the medium of exchange in our society.

The research was conducted to answer three basic questions:

1. Is access to E&IT by Americans with disabilities sufficiently fundamental to rise to the level of a civil right?

2. Which laws establish civil rights protections around E&IT access and how are those laws being applied and enforced?

3. What changes in law or practice would be most effective in fulfilling the goals of E&IT access equality for all Americans?

The methodology adopted for this research involved analyses of all relevant statutes, regulations, and case law bearing on the scope and enforcement of disability civil rights laws; interviews with key federal officials involved in the process of making E&IT accessible; review of federal documentation of accessibility policies and practices; and analysis of nongovernmental reports and studies of E&IT accessibility.

B. Roadmap to This Report

The remainder of this chapter sets out a framework for understanding the issues surrounding E&IT access and why they are important. Chapter II presents a historical review of the development of civil rights laws and concepts dealing with information and information technology access. Chapter III explains the major current legal provisions bearing on this subject. Chapter IV analyzes and documents the administration and implementation of these laws by the responsible federal agencies and as interpreted by the courts. Chapter V sets forth the findings of the report. It is divided into two parts. The first section sets forth observations and conclusions based on interviews and conversations with agency officials, technology users, and advocates

concerning how and why some federal agencies have been more successful than others in implementing information technology access rights. The remainder of the chapter sets forth other major findings based on our documentary and empirical research. Chapter VI offers detailed recommendations for implementing and enhancing current laws and practices to improve the accessibility of the nation's information infrastructure.

C. The Importance of Information Technology

IT is known by various names in its application to the lives of people with disabilities. Such terms as "adaptive equipment," "assistive technology," and "electronic and information technology" all have their place as subsets or extensions of what we commonly think of as IT. Adaptive equipment, a general term with no specific statutory definition, describes any sort of modification to technology, including design changes or add-ons, that make it more accessible to or usable by people with disabilities. AT, a statutory term deriving from the Technology-Related Assistance for Individuals with Disabilities Act of 1988, includes both AT devices and services. An AT device is any item or system "that is used to increase, maintain, or improve functional capabilities of individuals with disabilities."[2] E&IT as defined in the implementing regulations for Section 508 of the Rehabilitation Act is specific to the communications and information environment and refers to the broad range of hardware, software, and other components making up this environment.[3]

In the currency of daily life, what is more important, yet more taken for granted, than access to information? But for many people with disabilities, the information access and exchange that most of us take for granted is difficult or impossible, or can be achieved only with the intervention of third parties or through the use of AT. The reasons people with disabilities lack access to information in our society are perhaps more significant and certainly more within our control than the lack itself. The explanation increasingly lies not in disability itself, but in the design of the technology that mediates our access to and use of all types of information.

For Americans generally, the expectation of access to information is taken for granted, almost to the point of being considered a right. Who would question that in America we advertise job openings so the broadest range of qualified people may have the opportunity to compete for them? We attach such importance to timely notice from government regarding its decisions about our lives—denial of a disability claim, demand for additional taxes, granting of a driver's license—that our rights to such information are enshrined in law, even reaching the status of constitutional due process. And we recognize that information from and about government is essential to the functioning of our democracy and to the individual's exercise of the responsibilities of citizenship. How outraged would we be if the opportunity to compete for the promotion were not posted, if the grant or denial of our driver's license were never made known, or if the text of official pronouncements were not published?

No one would dispute that people with disabilities have the same need for information everyone else has. Nevertheless, for many of these citizens, the information gap (both a cause and a consequence of various forms of economic and social disadvantage) is not narrowing. Paradoxically, at the very time when many people comfortably assume that technology is steadily bringing people with disabilities more opportunities for access than they have ever known before, this same technology (coupled with the attitudes and expectations of those who use it) may in many cases be reinforcing patterns of exclusion and isolation.

Recent discussion of the "digital divide" problem has demonstrated the existence and consequences of major disparities in our society between information "haves" and "have-nots." The harm attributable to the information gap is severe, both for those denied opportunity and participation as a result of it and for society as a whole. While Americans with disabilities can all too often be counted on the "have-not" side of the information and information access equation, the reasons and remedies for this exclusion are not so well or widely understood.

Leaving aside broader questions of poverty, education, or health care, the problem is that much information the rest of our society takes for granted is not provided or disseminated in ways accessible or usable by people with sensory, physical, and cognitive disabilities. Imagine trying to conduct your life in a world where most key communications were made only in an unknown foreign language. Imagine life in a world where a person may not even know the information exists.

We live in what is frequently called "the information society." In this successor era to the Industrial Age, information is more and more the principal commodity of commerce, and technology, ranging from the computer to the information kiosk, from the electronic message board to DSL, is more and more the medium for transmission, storage, and manipulation of that information. Thus access to information technology is increasingly the arbiter of success and the source of opportunity in education and employment. Under these circumstances, it should not be surprising that access to information and to the technology that creates and provides it would become a civil rights issue for people with disabilities and for our society. As the role of information access grows in the way we conduct our lives, in the choices we make, and in the decisions others make about us, the importance of information technology can only expand.

D. Nature of the Problem

Even as they create new opportunities for some, information technology advances erect access barriers to others. Where such barriers could be avoided, their needless occurrence is all the more tragic and wasteful.

Among the kinds of technology that have irrevocably changed life for all of us, modern information technology, the technology of the computer era, has dramatically empowered many people. But any assumption that all or most information technology is routinely available to or usable by people with disabilities would be a grave mistake. Incorporation of what we call

accessibility into America's information technology infrastructure is not and has not been automatic or certain. When any new mainstream technology creates opportunities for some but excludes others because of design features that do not take users with disabilities into account, part of its impact is to engender frustration, create divisions, and reduce the opportunity for independence available to significant subgroups of our fellow citizens. Conversely, employers who may want to reach employees with disabilities by cell phone are unable to do so because the cell phone has no amplification capabilities.

A few examples drawn from our everyday technology and experience illustrate this point. The cellular telephone which has brought so much convenience to so many has also created new barriers to telecommunications access for people with hearing impairments because most such phones have lacked hearing aid compatibility. Banks that once employed tellers to serve their customers now rely on automated teller machines (ATMs), telephone service lines, and the Internet. Each of these information technologies poses severe access barriers for people with various disabilities. People who cannot see the information and prompts on the screen are effectively barred from using ATMs. People who cannot enter long strings of account or card numbers before voice response systems "time out" are prevented from using all kinds of automated customer service lines. And people who cannot use a mouse may be precluded from accessing many online applications and opportunities in the commercial sector.

As isolating as these limitations are, their impact is all the more frustrating because they are largely needless. If design principles and technological capabilities did not exist for making our E&IT accessible to persons with disabilities, regrets might be in order. However, such techniques for the most part do exist and can usually be implemented at little cost, with minimal disruption to industry, commerce, and other technology users. Questions thus arise about why such enhancements are not more widely utilized and what can be done to bring about their use.

One part of the answer to these questions can be found in law. The civil rights provisions discussed in this report are among the methods chosen by society to help minimize the information access gap between people with disabilities and those without disabilities. In the end, though, while laws can legislate behavior, laws do not touch people's hearts and minds so that they do what is right. This report is intended to promote better understanding of what can be done and why it is right and vitally important for all of us to join in doing it.

E. Scope of the Problem

Today an estimated 54 million Americans have a disability, a number due to grow rapidly as our population ages. As an outgrowth of these demographics and the changes associated with advancing age, the line between who is and who is not a person with a disability will steadily erode.

Whether we have disabilities, do not have them, or are on the cusp of having them, inaccessible technology affects all of us. These effects can be grouped under three major headings: demographics, economics, and justice.

1. Demographics

Fully understood, E&IT inaccessibility affects far more people than is commonly thought. E&IT access is a major issue not only for people with sensory disabilities of hearing or vision, but also for persons with communications, cognitive, mobility, and other disabilities. An elevator button panel too high to be reached by a person using a wheelchair is an inaccessible information appliance. A computer that requires unusual force or dexterity to turn on is likewise inaccessible to people with limitations of strength or reach. To the degree they restrict or prevent people with disabilities (or people who are just getting weaker and stiffer with age) from using E&IT, such

features of the technological environment constitute barriers to access and participation in all spheres of daily life.

The Census Bureau estimates that one in five people have disabilities (www.census.gov/hhes/-www/disable/sipp/disable97.html). Despite these numbers, some may still ask why access is an issue for society as a whole. As President Bush's New Freedom Initiative points out, "Disability is not the experience of a minority of Americans. Rather, it is an experience that will touch most Americans at some point during their lives." Put another way, if we can just manage to live long enough, all of us will eventually have a disability, or we will have a functional limitation close enough to be worthy of the name.

2. Economics

In the face of the highest levels of employment since World War II, unemployment rates among Americans with disabilities remained stubbornly high throughout the late 1990s. The Census Bureau has recently estimated this rate among adults age 21 to 64 at two-thirds (www.census.gov/hhes/www/disable/sipp/disable97.html).

At the same time, survey research data indicates a strong desire for employment among people with disabilities and a 44 percent unemployment rate among those who describe themselves as able and available to work.[4]

The emotional and personal toll these numbers suggest cannot be measured, but the economic consequences are all too plain. At a time when national policy is focused on the creation of a skilled and highly trained workforce, capable of competing in the world economy, when skilled workers in many specialties remain in short supply, and when computerization has both reduced the physical demands associated with many jobs and placed a premium on computer and related

skills, the persistence of high levels of unemployment among Americans with disabilities is economically insupportable and unacceptable in light of disability policy and civil rights.

No one can say exactly how many of those now consigned to unproductivity and unemployment would be enabled to enter and remain in the economic mainstream if information technology were generally accessible and usable for all. Suffice it to say, in an era when computers and other forms of E&IT are used in a growing proportion of businesses and fields, even in traditional manual-labor occupations such as manufacturing or agriculture, there is strong reason to believe that investment in accessibility will be rewarded with increased opportunity and higher levels of employment among people with disabilities.

A number of proposals and actions by the Bush Administration suggest the administration's recognition of the importance and potential of technology-oriented jobs. The New Freedom Initiative, for example, proposes the creation of tax and other incentives for the provision of computers to persons with disabilities for work at home. Other administration actions supportive of a highly skilled workforce in our nation include the short-term delay of the expiration date of the President's Information Technology Advisory Committee, and the creation of a number of high-tech task forces and projects.[5] The presidential proposals also include significant new investment in AT predicated on similar logic.

The issue of accessibility is vital to address in their presidential proposals formulation and implementation. Undoubtedly, the incorporation of accessibility requirements into the design of these programs will result in some added cost, in both money and time, but as a function of the overall costs of these initiatives, and in light of their intended benefits, such costs may prove far smaller than the costs of inattention.

Such proposals to direct resources toward enhanced E&IT access are subject to economic and cost/benefit analysis. A variety of disability policies and even disability rights laws have been

analyzed in this way. For example, economic impact studies of the two most important E&IT access statutes (Section 508 of the Rehabilitation Act and Section 255 of the Communications Act) have been conducted by the U.S. Architectural and Transportation Barriers Compliance Board (Access Board) as part of the rulemaking process for their implementation. The most recent of these studies, conducted in 2000 in connection with Section 508, found that this new law is a "significant" economic regulation (meaning that it is expected to cost more than $100 million).[6] Nonetheless, the Board's finding (subsequently adopted by the executive branch in the Federal Acquisition Regulation implementing the Section 508 standards) was that Section 508 would not unduly burden the economy.

Efforts to extend the analysis of economic impact to future or broader accessibility initiatives are necessarily conjectural. But certain hypotheses do seem warranted. We will discuss the economic implications of a national E&IT access policy in further detail in Chapter VI. For the moment, we must remember that the costs of doing nothing may be greater than the costs of any reasonably foreseeable measures. For as information and E&IT come more and more to define our lives, the implications of lack of access to such technology can only grow commensurately greater with each passing day.

3. Justice

Any civil rights concept of access to E&IT forms part of the requirements of three major Federal laws: the ADA, the Telecommunications Act of 1996, and the Rehabilitation Act of 1973, as amended. As mentioned previously, this report looks specifically at federal enforcement of key laws (i.e., the ADA, Section 255 of the Telecommunications Act of 1996, and Section 508 of the Rehabilitation Act, as amended) and how such enforcement relates to E&IT.

Despite the lack of a traditional notion of E&IT as a civil rights concept, the experience and consequences of inequity are real, whether they are intentional or are simply the unanticipated byproducts of unrelated decisions.

Beyond a certain point, the line between accidental and deliberate exclusion may be hard to draw. But where means exist to mitigate palpable injustice and are not taken, the suspicion at some point becomes unavoidable that this line has been crossed. If we fail to take the measures technology puts in our power to equalize the information-access playing field, our society will surely be answerable for more than ignorance or indifference.

F. Electronic and Information Technology As an Element of Diversity

Considering the estimated 54 million Americans with disabilities (along with persons who do not qualify as having disabilities under law or whose self-images preclude any identification with disability), the constituency and the need for accessible E&IT may be far greater than has traditionally been supposed. If the varying communications styles of people from diverse cultures and the use in this country of many languages are taken into account, the constituency for accessible information becomes still larger.

Government and business have already done a great deal to make information available and communication possible in multiple languages and through a variety of media and formats. Partly, this proliferation of languages and dissemination strategies reflects a growing appreciation of the diverse cultural makeup of our society. Partly, it derives from commercial motives and economic considerations. But to a large extent, too, it derives from our sense of equity and fairness, and increasingly from the enshrinement of those values in law.

How is it, then, that against this backdrop, access to key public, business, and personal information for people with disabilities remains a serious problem and a controversial issue? How is it that the aspiration of people with disabilities for timely, accurate, and contextually sensitive access to information comes as a surprise to some, a fringe special-interest demand to others, and a perceived threat to not a few?

Today, technology plays a central role in almost all information creation and dissemination. From the blockbuster film playing in thousands of movie theaters to the quick note sent by e-mail to a friend, from the order telephoned into the nearby pizza store to the new software instructing your computer how to perform various operations, technology mediates the creation and dissemination of all our public and much of our personal and private information. The problem is that most of these technologies were developed and deployed without regard to users with disabilities. The question of how or whether to make them accessible has almost always been an afterthought, requiring a convergence of demand, technology, and willingness in order for that goal to be met.

If so many millions of people with disabilities make up the constituency for accessibility, why aren't mainstream business or personal-use communications and E&IT designed accessibly? Why does accessibility remain a point of departure rather than simply another point on the continuum of better, more user-friendly design? After all, don't the creators and purveyors of information already seek (for economic and other reasons) to make their data as widely available and their equipment as broadly usable as possible? Isn't accessibility just an extension of the principles to which many designers, developers, and marketers already claim to subscribe?

These questions have no single or simple answers. A cluster of technological, economic, attitudinal, and legal factors have combined to play a role. These variables will be discussed throughout this report through the prism of the civil rights laws that have been adopted to enhance information access and create information equality. Accordingly we turn next to a

review of the development of information and information technology access laws over the past generation.

CHAPTER II

A Brief History of Information Technology Accessibility

The notion that equal access to electronic and information technology (E&IT) is a civil right of people with disabilities has emerged over the course of a generation. In many ways, the emergence and development of the right to E&IT access parallels the development of the right to physical access. In other ways, the history and implementation of the two concepts have taken very different pathways. Because the concept of E&IT access may be less well known and less generally understood than that of physical access to buildings and facilities, this chapter, wherever possible, will draw on analogies to physical accessibility and architectural barrier removal, and will describe some of the ways in which information-technology access advocacy has been influenced by advocacy for access to the built environment.

A. The First Accessibility Law

In 1968, Congress adopted the Architectural Barriers Act,[7] which mandated the removal and avoidance of a variety of physical barriers to access in the design and construction of federally funded buildings and facilities. This watershed statute brought about new opportunities and expanded options for many people, but it also epitomized and inaugurated a new era of social policy regarding disability. The Act put into law the recognition that barriers in the built environment, as much as or even more than any inherent consequences of a physical impairment, account to a large degree for how disabled a person really is in society. If these barriers could be eliminated, the level of disability could be substantially reduced.

In this proactive statute, Congress for the first time "connected the dots" between the decisions made in the design and construction phases of a building and the opportunity for individuals,

perhaps many years later, to access the goods or services available in that building. Before a new building ever went up, when it would be cheaper and easier to make accommodations, the law sought to vindicate the access rights of all who might one day seek to enter it.

The Architectural Barriers Act was a major point-of-departure in another way as well. Although its scope and requirements were modest, the Act represented the first significant instance (outside of wartime) when private sector entities were required to take or forgo certain actions solely because of their impact on the rights and lives of people with disabilities. Before this, no federal mandate other than paying taxes compelled the private sector to concern itself with these citizens, so the notion that the government could require them to modify any of their business practices or decisions on behalf of this population was a novel one.

From its modest beginnings in application only to federally funded construction, the notion that the government can tell people anything about how to build their buildings has been extended by subsequent statutes to the point where today the Americans with Disabilities Act (ADA) requires barrier-removal and accessible design requirements on all state and local governments and on all private entities and commercial facilities that meet the law's definition of "public accommodations."

By creating and broadening the use of accessibility requirements for the built environment, society paved the way for creating and expanding parallel requirements to E&IT access in the information environment of today. While the scope of accessibility rights in the information sector remains considerably narrower than its counterpart in the physical realm, this difference (as we shall discuss later in this chapter) is not so much the result of a lesser philosophical commitment or of lesser moral justification. Rather, it is a consequence of the more complex interdependence between technology and law in the information arena and the fact that rapid changes in E&IT dramatically alter the economics of accessibility.

B. The First Disability Civil Rights Law

During the 1960s, our nation was transformed as Congress enacted landmark civil rights protections for racial and ethnic minorities and women. In 1973, similar civil rights protections were extended to Americans with disabilities.[8]

The Rehabilitation Act of 1973 included the historic Section 504 which barred discrimination on the basis of disability in programs operating with federal financial assistance, and which required provision of reasonable accommodations to avoid such discrimination.[9]

Section 504 not only was the first statute applying civil rights protections to people with disabilities, it also furnished the model for major subsequent enactments, including the ADA. From the outset, coverage under Section 504 included anti-discrimination and reasonable accommodation requirements in connection with access to information.[10] The terms of reference for these communications and information access rights were of course very different in 1973 from those of today. The emphasis then was on reasonable accommodations such as readers for people who are blind, or interpreters for people who were deaf. Unlike the case with physical access, the notion that civil rights could or should include modification of mainstream communications technology was essentially absent from the thinking of that day.

This is not to say that E&IT had no place under the Rehabilitation Act. The law addressed communications and information primarily in the context of the vocational rehabilitation services that could be provided to clients with sensory disabilities. Sensory aids and communications equipment were included among these services.

When we consider the state of technology at the time the Rehabilitation Act was passed, the approach the law took should come as no surprise. Various devices ranging from braille writers

to hearing aids existed for facilitating written or oral communication by persons who were blind or deaf, but apart from teletypewriters (TTYs or text telephones), none of these devices were interactive in the sense that they could or needed to be interconnected with mainstream communications or telephone systems. Because no occasion existed for connecting to the communications grid, the notion of accessibility or compatibility had no meaning.

C. The Evolution of Access Rights

The scope of coverage of civil rights laws has grown steadily since 1973. Today private and public entities are subject to the requirements of the law, whether or not they receive federal funds. Likewise, our definition of discrimination has expanded to include unequal treatment or denial of access resulting from the inaccessibility of mainstream E&IT. In addition, design requirements have been successively broadened to include manufacturers of televisions, manufacturers and sellers of telecommunications equipment and services, and soon (by virtue of the recent amendments to Section 508 of the Rehabilitation Act) all manufacturers or vendors who wish to sell "electronic and information technology" to the Federal Government.

How is it that we have come in a generation from a fairly meager right to information to the E&IT access requirements and rights of the early 21st century? Before reviewing some of the legal milestones, three important nonlegal developments must be noted: cross-disability elaboration of the meaning of access; emergence of accessible design; and developments in communications technology.

1. The Meaning of Access

Beginning as the right to enter a building, the concept of access has evolved to incorporate qualitative measures. Today we talk not just of access but of "meaningful" access. As embodied

in the ADA, this means the right to fully participate in enjoyment of whatever opportunities, benefits, programs, or services an organization covered by the law offers.

The right of meaningful access necessarily and prominently includes the right to content, which in turn presupposes access to relevant information. Thus, it would be unthinkable today to argue that an individual with a hearing impairment has meaningful access to a city council meeting if no interpreter services or assistive listening systems are provided. Similarly, no one would seriously contend that an individual who is blind has equal access to a business training conference unless the handouts are made available in an accessible nonprint format.

The evolution in our concept of access cannot be understood without reference to the steady shift in society toward technology-mediated methods for conveying and receiving information. The transactions that once took place over the phone between customers and clerks are now highly automated. Airlines encourage people to buy tickets via the Web by providing discounts. Banks are phasing out tellers and charging fees for teller service in order to direct customers toward automated teller machines (ATMs).

As with any group of citizens, people with disabilities will naturally differ in their preferences for human- or technology-mediated interactions. Increasingly, though, they have little choice; you cannot ask a ticket agent for the time of the next train if the ticket agent has been replaced by a machine. Whether you can ask the machine depends on its accessibility.

2. The Principle of Accessible Design

Our ideas about the nature and meaning of access could not have developed without simultaneous advances in the design philosophy of information and other technologies. Broadly speaking, the concept of accessible design (or universal design, or inclusive design as this

concept is sometimes called) proceeds from the assumption that by building our environment so that alternative means for conveying and receiving information exist, E&IT can be made more usable to the broadest range of people including people with disabilities and people with differing communications preferences or styles. As it relates to civil rights, technology design that takes into account the needs of as many potential users as possible also reduces the number of occasions requiring individual accommodations and fundamentally alters the economics of accessibility.

Our law has increasingly made use of these principles as developments in technology have made doing so feasible. The philosophy of universal design received perhaps its purest legal expression in The Television Decoder Circuitry Act of 1990.[11] The Decoder Act may be regarded as our nation's first universal design law, since it applied to all televisions with 13-inch or larger screens. The Act mandated inclusion in all such TVs of closed-caption decoder chips. Technology had made possible a law that freed people who used captions from purchasing decoders costing one hundred dollars or more for attachment to their televisions.

Instead technology and law had in combination made it possible to take steps at the design and manufacturing stages that spread the cost of decoders across the entire base of television purchasers at a negligible per set added cost. Moreover, because the requirement applied to all TVs of the requisite size, and because the law came into effect only after a nearly three-year gearing-up period, no competitive distortion or imbalance was introduced into the commercial marketplace.

3. Developments in Communication Technology

Neither the Decoder Act nor a number of other statutes of the late 1980s that imposed specific technology requirements on the manufacturers of telephones would have been possible if the technology of communications had not evolved as rapidly or in the ways it did. Accordingly, a

key question for information access advocacy has long been that of how the course of mainstream technology development could be influenced to place more emphasis on accessibly or universally designed products. Several approaches have been tried to influence the design philosophy and even the research and development (R&D) priorities of the telecommunications, computing, and other E&IT industries of our nation. But none of these efforts would have been possible without broad changes in the information environment which transformed isolated devices into coordinated, interoperable "networked" information systems.

The advent of the personal or home computer marks the point at which this trend gained widespread recognition. Gone were the dedicated, stand-alone devices of even the recent past such as electric typewriters/word processors, and in their place were computers cabled to external drives hooked to printers and in due course, connected to the telephone system and to a variety of office equipment that the computer user might never even go near.

Again, changes in the notion of information accessibility followed. In the blindness community for example, research and development efforts emphasized the creation of software and peripherals to facilitate synthetic speech, braille, or large print output from standard computers. As access to information became increasingly a function of the ability of our devices to work interconnectedly, the premium on access technology that would work in such an environment naturally grew apace. But what kind of laws would reflect the new reality of communications?

D. A New Barrier

Part of the problem created by the interconnected communications environment was that stand-alone or assistive technology (AT) solutions could no longer suffice. The complexity of the new information systems required that manufacturers and developers of mainstream commercial off-the-shelf hardware and software implement design features that would enable specialized equipment to work. In the telecommunications sector, for example, the term "specialized

customer premises equipment" was used among others to distinguish between the off-the-shelf equipment that most people used and the AT peripherals (such as text telephones or TTYs) that people with disabilities needed.

This need for peripheral or add-on devices and software that could be incorporated into the interconnected system in turn gave rise to the notion of "compatibility" as a fallback requirement when accessibility of the mainstream devices and systems was not possible. The hope in the disability community was that if mainstream developers could not make their equipment and services fully accessible, they would at least make them "compatible" with AT.

Though mainstream developers certainly seemed in a position to pursue accessibility and compatibility, no law clearly obliged them to. Indeed, as sometimes happens in technology, some of the most highly touted advances in computer software and operating systems have actually set back the cause of computer access for people who were blind.

The move from text-oriented DOS-based to graphical Windows-based computer operating systems resulted in precipitous losses in access (and, according to reports at the time, losses in jobs) for persons using speech or braille for their computer output. Largely unaided by mainstream developers, it took the AT industry several years to develop viable Windows-access strategies, and some say the ground lost has never been fully regained.

E. The Convergence of Technology and Law

A law passed in 1986 pointed the way to a new method of encouraging industry to devote additional resources to accessibility and compatibility.

1. The Leverage Model

In 1986 Congress passed the first of the three versions of Section 508 that have existed. The law was amended in 1992 and again in 1998 to give us the statute we now have.[12]

As enacted in 1986, Section 508 required government agencies, in their purchases of electronic office equipment for their own use, to follow principles of accessibility in their procurement of such equipment. The law included no enforcement provisions but was backed up by technical assistance through the General Services Administration's Clearinghouse on Computer Accommodations. Section 508 didn't automatically make a single operating system accessible to people who could not see the screen, or a single telephone compatible with TTYs. But what 508 could do was give those marketing to the federal sector new incentives to make their products accessible and to work toward universal design. The theory was simple: If the E&IT industry's largest customer wanted products of a particular kind, industry would allocate the necessary R&D resources to satisfy that customer's needs.

Devoid as it was of enforcement mechanisms, the original version of Section 508 was doomed to fail. Despite this fundamental flaw in the original statute, the model it pioneered has remained in use and become more sophisticated. Today the grandchild of that original Section 508 creates what should prove to be powerful incentives to accessible or universal design, since it does include mandates with which federal agencies must comply, technical assistance to aid them in compliance, and clear standards of what constitutes compliance with respect to all major categories of E&IT.

2. The Technical Assistance Model

Technical assistance has played a major role in the attempts over the past 15 years to enhance the accessibility of the information environment. In both voluntary and mandatory settings,

awareness has grown that success depends on the availability of technical assistance and on effective coordination and sharing of the scarce expertise in the field.

The clearest expression of the technical assistance model and philosophy came in the Technology-Related Assistance for Individuals with Disabilities Act of 1988 (Tech Act). Amended and revised once since then, and now known as the Assistive Technology Act of 1998, this legislation provided resources to state-level assistive technology projects to engage in a variety of activities to further the cause of AT use, including various forms of technical assistance to state and local government and to the private sector.

Although the emphasis has shifted, one of the major goals of the Tech Act was to bring about institutionalization of pro-technology access changes in the operations of various public and private institutions. The method chosen for this was distinctly noncoercive. Later, civil rights statutes, such as the three we will study in this report, have continued to place heavy emphasis on technical assistance, even though all three operate under what we call an enforcement model. The important role technical assistance continues to play under voluntary compliance and enforced-compliance models alike serves to underscore the complexity and difficulty of fully implementing accessibility design and practice in the E&IT industry.

3. The Enforcement Model

No disability civil rights law is absolute in its requirements. Where excessive cost or other factors make a proposed action or remedy an "undue burden" or render it "not readily achievable," the laws will not insist that it be done. In such cases alternatives need to be found, but each of these is subject to the same tests. Accordingly, any suggestion that enforcement is now a primary tool on which we rely for accessibility must be qualified from the outset.

Within this framework, the ADA, Section 255, and Section 508—the three principal civil rights statutes enlisted in the struggle for information-technology access during the 1990s—all create definite and measurable expectations of what the private sector business must do in its multiple roles of employers, public-accommodations providers, and product developers or suppliers. Coming from government, from the disability community, and from other segments of society, these expectations combine to create what may fairly be termed a climate of enforcement. Whether this model in all its various formulations will work, only time, together with further developments in technology, will tell.

Each of the models discussed in this chapter finds echoes in the three seminal civil rights statutes introduced and examined in the next chapter. But whatever model or combination of models we rely on, the question of whether E&IT access should be regarded as a civil right ultimately depends on more than law. If at the dawn of the 21st century we say access to E&IT is a civil right, we do so not merely because of the expectations surrounding such access, nor because of the undergirding of laws that weigh in on the subject. Rather, we say it because E&IT is the overwhelming means by which people receive, process, and disseminate information today. If we lived in that era when conversation, the pen, and the pencil were the main modalities for conveying and receiving information, we would say that access to those technologies and their products constituted the measure of basic information equality. Today, when sophisticated E&IT is the primary medium of exchange, it is equally true that access to its modalities is for all practical purposes the measure of access to information itself. To say that people have no right of access to these technologies is to say nothing less than that they have no right to earn a living, get an education, withdraw $20 from their own bank accounts, buy a public transit ticket, or communicate with their families across the country.

BEST COPY AVAILABLE

Chapter III

The Legal Framework of Information Technology Access Rights

In a democracy, the right of the citizenry to information is a subject of constant concern and debate. When people speak of the right to information, they are generally concerned with such matters as governmental secrecy, personal privacy, or institutional accountability. The information technology (IT) access issues discussed in this report are of a different order. Our concern is with accessibility and usability of information that in law and custom is routinely available to and expected by all.

The laws that concern us here are those providing access to electronic and information technology (E&IT) to persons with disabilities. These laws take as their fundamental assumption that where technology or other means exist for making data available on equal terms to people with and without disabilities, these means should be utilized whenever possible. Accordingly, in analyzing E&IT access rights, our focus is on the three federal statutes that have the greatest impact on the subject: the Americans with Disabilities Act (ADA)[13]; Section 255 of the Federal Communications Act of 1996[14]; and Section 508 of the Rehabilitation Act as amended in 1998.[15]

Before we examine these statutes, a word about terminology: Different statutes use different terms to describe the kinds of technology with which they and we are concerned. In this study, unless the context indicates otherwise, we will use the term "E&IT" to describe such technology. This term, used in Section 508, derives from the Clinger Cohen Act of 1996, the major statute dealing with Federal Government information resources and information management practices. Although the term is relatively new and perhaps unfamiliar to some, we believe that E&IT will become the predominant term used in discussions of information technology access rights.

As discussed further in Section C below, the range of devices falling within the definition of E&IT is inclusive, encompassing all equipment, software, and Web sites used for creation, storage, transmission, or manipulation of information and data. Our major focus here will be on computers (including software and peripherals), telecommunications equipment, automated teller machines (ATMs) and information kiosks (including Web-based kiosks), and other Internet Web sites and resources.

A. The Americans with Disabilities Act of 1990 (ADA)

The ADA bans discrimination on the basis of disability in employment (Title I); in provision of public services by state and local government (Title II); and in provision of or access to goods, services, and facilities of public accommodations and commercial facilities (Title III). In addition, Title IV requires provision of telephone relay services. Our discussion focuses on Titles I, II, and III. Each of the ADA's three major civil rights titles has different implications for E&IT access rights.

1. Employment

Title I of the ADA is broadly concerned with access and equality of opportunity in the workplace. It is applicable to all issues that might give rise to discrimination, unequal opportunity, or disparity in the terms, conditions, or benefits of employment.

Situations involving arguable discrimination based on inaccessibility of E&IT are readily foreseeable. Imagine, for example, the case of an otherwise "qualified individual with a disability" denied employment on the ground that her disability prevents her from using the computers required for job performance. From the standpoint of Title I, denial of employment on this basis is no different from denial on any other disability-related grounds. Here, as in any other

alleged employment discrimination context, if investigation determined that access to the computer was difficult or impossible, consideration of reasonable accommodations would be triggered.

Title I requires employers to make reasonable accommodations when doing so would not constitute an "undue hardship" or fundamentally alter the nature of the employer's business.[16] Thus, if an appropriate technological solution exists, the employer would ordinarily be required to implement this solution.

But application of Title I in the E&IT context presents two distinct legal problems. First, although Title I contemplates an interactive process whereby the employer and employee jointly arrive at an appropriate individualized accommodations solution, and although the law accords preference to the accommodation preferred by the worker, case law makes clear that in the end, the employer makes the final decision. Typical are two cases, one involving a modified computer keyboard[17] and the other involving a request for a teletypewriter (text telephone),[18] in which the employers were allowed to restructure the jobs to eliminate the E&IT-oriented functions rather than provide the equipment. Only in a case where E&IT accessibility represented the sole reasonable accommodation possible would the law require an employer to make it accessible.

The second problem associated with application of Title I to E&IT is the high potential for disagreement over the adequacy, cost, and feasibility of E&IT accessibility modifications. Even experienced professionals within corporate IT departments are likely to have little or no knowledge of the costs or possibilities of E&IT accessibility. While employers do have an obligation to research possible solutions in reasonable accommodations situations, the ability on the part of employees to identify both appropriate technology and sources of information is likely as a practical matter to prove crucial to the success of many accessibility-oriented accommodation requests.

The Equal Employment Opportunity Commission (the agency charged with primary responsibility for implementing Title I) favors mediation as a means for resolving employment discrimination complaints without litigation. But mediation will not resolve factual disputes surrounding the feasibility or cost of E&IT accessibility solutions. Mediators may be able to persuade the parties to agree to seek the assistance of independent outside experts, but even this requires that someone—the mediator, the employer or the employee—know or suspect that qualified technical assistance and expertise are available.

2. Public Services

With Title II, the requirements of the law are likewise broad. State and local government agencies are prohibited from discriminating on the basis of disability in providing services or conducting activities. These entities are obliged to implement reasonable modifications in "policies, practices, and procedures" where necessary to prevent discrimination or to afford equal access and participation. From the standpoint of Title II, once again it does not matter that the arguable discrimination results from the use or inaccessibility of E&IT.

One obligation of governmental entities under Title II is ensuring "effective communication" with members of the public seeking information or services or to participate in activities. Means for achieving effective communication include providing auxiliary aids and services, among which technology-oriented solutions are included.

"Auxiliary aids and services includes—

(1) Qualified interpreters, notetakers, transcription services, written materials, telephone handset amplifiers, assistive listening devices, assistive listening systems, telephones compatible with hearing aids, closed-caption decoders, open and closed captioning, telecommunications devices for deaf persons, videotext displays, or other effective methods of making aurally delivered materials available to individuals with hearing impairments;

(2) Qualified readers, taped texts, audio recordings, brailled materials, large print materials, or other effective methods of making visually delivered materials available to individuals with visual impairments."[19]

"Acquisition or modification of equipment and devices" is also mentioned among the examples of auxiliary aids and services listed in the regulations, but in a nonspecific and general way. Interestingly, though certainly appropriate in many cases, use of electronic media, including computers for people who are blind, was not included in the list of examples, despite indications that commenters on the proposed regulations urged the Department of Justice to include them on the list.

Let us suppose that a municipal government decided to use information kiosks to provide forms for personal use by citizens (such as in applying for various permits) or for the dissemination of brochures and information of general interest to the public. If the information transaction machines (ITMs) were inaccessible to people with disabilities, the normal processes of the law would once again need to unfold. But in the case of Title II the question of whether the ITMs could be made accessible without imposing an "undue burden" on the local government might have to be deferred until a preliminary jurisdictional question was answered.

Because Title II covers "programs" and "activities" of local and state government, some public officials have expressed the opinion that ITMs, public terminals, and other public access computers do not constitute programs or activities within the meaning of the law or within any widely recognized definition of what governments do. On this basis, a municipality might interpose a jurisdictional defense, claiming that Title II does not apply. No court is known to have endorsed this position, but the likelihood of such arguments being raised should be anticipated in any Title II public E&IT accessibility setting.

Returning to the normal ADA process, the first question would concern the potential cost and difficulty of making the ITMs accessible. Here the law presents a problem. In determining whether a proposed modification is reasonable, the law looks at the actual costs and difficulty such modification would entail. Modification of the ITMs after they have been designed or after deployment has begun involves retrofitting which is almost always more expensive and more difficult than accessible design from the outset. The law does not provide clear guidance on how the unnecessary but nevertheless very real costs of retrofitting are to be handled. While courts have not been sympathetic to undue burden claims arising from costs that respondents should have foreseen and could readily have avoided, and although courts have not treated such costs as barrier removal costs (which are subject to the more lenient "readily achievable" test rather than to the undue burden standard), the political consequences of heightened costs may all too easily overwhelm the legal solution.

Title II also poses another problem in application to public sector E&IT. The municipality may have the option to decline making the ITM accessible, even without pleading undue burden, if it can prove that under the facts and circumstances of the case, some other strategy for providing the information meets the requirements for "program accessibility." If the local government had made alternative arrangements by way of auxiliary aids or services for people to obtain the forms or information (say from an information desk at a nearby accessible public building), then the legal question would become whether program accessibility had been achieved. Is the communication "effective"? This is a question of fact, its answer depending on such factors as convenience, completeness, timeliness, and other variables.

Few cases involving inaccessibility of E&IT under Title II have arisen. In one interesting case, accessibility advocates sought injunctive relief to stop the state of Washington from going ahead with installation of an inaccessible kiosk system.[20] The case never went to trial, and the state abandoned its plans to implement the system, but persons familiar with the case consider it likely that the state's decision to pull back the system resulted from the threatened lawsuit.

Case law at the administrative level has pointed the way toward the solution of one major problem surrounding the application of Title II to E&IT. The problem, which actually occurs under all three civil rights titles of the ADA, relates to the fact that so many of the obligations of covered entities are triggered by requests from individuals with disabilities. In the case of E&IT access, such requests may often come too late, since by the time an individual is confronted by an inaccessibility problem, the underlying E&IT infrastructure of the school or company or government agency may not allow for implementing the necessary changes. For this reason, the ADA needs some mechanism for moving the discussion from individual requests for accommodations, modifications, or auxiliary aids and services to accessibility measures proactively implemented by covered entities.

Title II provides such a mechanism in the form of its provisions bearing on ADA self-evaluation studies that covered entities are asked to conduct.[21] A half dozen cases involving information access complaints against public postsecondary institutions in California during 1992–1999 deal with the role of self-evaluation and advanced planning in connection with auxiliary aides and services under Title II.

In these cases (all but one arising under the dual jurisdiction of Title II and Section 504 of the Rehabilitation Act), the U.S. Department of Education's Region IX Office of Civil Rights (OCR) entered into voluntary settlements with several individual community colleges, with the entire state community college system, with branches of the California State University (CSU) system, and with one private university. These complaints all involved claims of information or IT inaccessibility by students with visual impairments, and several of the cases, as well as a case in the Department's Region II OCR in 1995, resulted in agreements by the institutions to make computer labs accessible.[22]

Of particular note in connection with the requirements of the law for planning ahead for accessibility are statements contained in the Department's April 20, 1999, CSU Long Beach

settlement letter: "A public entity has an affirmative duty to establish a comprehensive policy in compliance with Title II in advance of any request for auxiliary aids or services" (see *Tyler v. City of Manhattan*, 857 F. Supp. 800 (D. Kan. 1994)).[23]

3. Public Accommodations

Title III of the ADA requires private entities and commercial facilities that meet the definition of "public accommodations" to make their goods, services, and facilities accessible to individuals with disabilities. Title III contains many of the same requirements and definitions (such as auxiliary aids and services and effective communications) as Title II.[24] But whereas providers of public services are expected to comply with Title II in all phases of their activity that involve the public, including those activities and services coming under the heading of e-government, private entities and businesses are generally subject to the law only in relation to the "places of public accommodation" they maintain for the public and the activities and services conducted at those locations. Thus Title III adds the notion of "place" to the civil rights equation.

What happens if the primary or sole "place" where a public accommodation does business with its customers or clients is through information kiosks, over the telephone, or via the Internet? No one would dispute that a restaurant must be accessible to customers with disabilities who wish to eat there (including provision of auxiliary services such as making menu information accessible), but many believe this restaurant is free to refuse to serve these same customers when they phone, fax, or email their orders. The uncertainties surrounding applicability of the law to these communications modalities and the questions surrounding whether transactions are covered if they do not occur at a particular "place" of public accommodations (such as a store, a doctor's office, or a movie theater) leave open the possibility that just such anomalies may occur.

Because all the examples of covered public accommodations enumerated in Title III involve goods or services provided in-person at a particular facility or location, this notion of the limited

nature of Title III's coverage does have some apparent support in the law.[25] Some courts have held that the jurisdiction of Title III hinges on the existence of a physical nexus between the individual with a disability and the covered entity.[26] Other courts have looked more to the nature of the activity in holding that where the content of a service would be covered by the law if transacted face-to-face, it is also covered if conducted remotely, by mail or phone.[27]

In a number of ways the Department of Justice (DOJ), which is responsible for enforcement of Title III, has supported the notion of its applicability to transactions and relationships not occurring in-person or at a specific location. DOJ has done this by obtaining settlements and consent decrees in several cases involving access by telephone to goods and services, such as complaints resulting in the provision by brokerage companies of customer information in nonprint accessible formats.[28] But it is in connection with e-commerce and the Internet that the question of Title III's reach takes on its greatest significance.

DOJ has interpreted the law as covering transactions occurring on the Internet. It did this in a formal response to an inquiry on the subject from Senator Tom Harkin of Iowa,[29] and it has done so by filing an amicus curiae (friend of the court) brief in a U.S. Court of Appeals Fifth Circuit case squarely raising the question (*Hooks v. OKBridge*).[30]

In this case an online bridge club revoked Hooks's membership because of inappropriate postings on his part. Hooks claimed that his mental illness was the cause of his behavior, and therefore that his exclusion from the online bridge club was discriminatory. OKBridge countered by claiming that the Internet was not covered by the ADA, since online bridge is not conducted at a "place" of public accommodations.

The trial court ruled in favor of OKBridge, and Hooks appealed. In its brief (www.usdoj.gov/crt/briefs/hooks.htm) DOJ argued that the nature of the activities, rather than the place where the activities were conducted, constituted the proper test of whether the activities were a public accommodation.

Although the Court of Appeals upheld the lower court judgment in favor of the bridge club, it did so without reaching the Internet coverage question. Instead, the Fifth Circuit based its decision on the finding that since the defendant had not known of Hooks's disability, it could not be found guilty of discriminating against him.[31]

With the applicability of Title III to the Internet thus remaining in limbo, it becomes all the more important that DOJ take measures to establish its interpretation of the law through the rulemaking process and otherwise. Although its letter to Senator Harkin was written in 1996, the Department has yet to follow up on this interpretation by adding any specific reference to the Internet or to e-commerce to its Title III regulations and by prominently incorporating E&IT access into its technical assistance activities, or by making any other sub-regulatory measures.

In fairness to DOJ, adding significant guidance about the Internet would have been difficult so long as no clear criteria existed for defining the meaning or assessing the achievement of Web site accessibility. But with the publication on December 21, 2000, by the U.S. Architectural and Transportation Barriers Compliance Board (Access Board) of its Final Rule implementing Section 508 of the Rehabilitation Act, such concerns need no longer exist.[32]

Progress toward accessible E&IT under Title III has been greater in the area of bank ATMs than in any other major category of E&IT. As a result of negotiations between individual and organizational litigants and major banks in California, Illinois, and Massachusetts, national settlement agreements have been reached for deployment over the next two to three years of accessible ATM machines in hundreds of locations around the country.[33] Although utilizing

differing designs and technologies adapted to functions and features of varying machine models, these systems all have the capability for users who are blind to obtain audio output of screen information and to verify user input. These agreements are significant because the disability community and a group of major banks have been able to agree on understandable and workable definitions of accessibility and usability. The ADA Accessibility Guidelines for Buildings and Facilities (ADAAG) section 4.34 clarifies that ATMs are to be accessible and usable by all persons with disabilities, including those who are blind, but the Access Board and DOJ have yet to finalize a regulatory standard for what that means. In the absence of such guidance or leadership, concerned private parties developed workable definitions for themselves. However, their ability to do so over nearly five years of intense negotiations is hardly an argument for governmental abdication of responsibility. The process would undoubtedly have been expedited if the needed guidelines had been in place.

B. Section 255

As part of the most sweeping revision of our nation's communications policy since enactment of the Federal Communications Act of 1934, Section 255 of the Telecommunications Act of 1996 requires manufacturers of telecommunications and customer premises equipment and vendors of telecommunications services to make their products and services "accessible to" and "usable by" individuals with disabilities, if it is "readily achievable" to do so. If such accessibility and usability are not readily achievable, then the equipment and services must be compatible with assistive technology commonly used by persons with disabilities, again, if readily achievable.[34]

Section 255 is not a traditional civil rights law. Rather, it is an accessible design statute, operating at the design and manufacturing stages and not dependent on the existence of a complaint or aggrieved individual for its requirements to come into play. Individuals who feel that their customer premises equipment (CPE) or telecommunications services do not meet the requirements of the law can file a complaint with the Federal Communications Commission

(FCC) (which administers the law), but damages are not available and lawsuits are not authorized. Examples of CPE are telephones, fax machines, answering machines, and pagers.

Section 255 relates to E&IT accessibility in several important ways. First, many E&IT devices are covered by the law, particularly those that involve voice communication over phone lines; telephone services themselves, indispensable to the use of most modern communications technology, are also covered. Over time, it is hoped that the mandate of Section 255 will result in progressive improvements in accessibility and usability of mainstream devices and services.

The second major contribution of Section 255 may be called procedural. Because the principles of accessibility it enacted were not self-executing or self-evident, Section 255 needed to be operationalized in order for people to understand what was required of them. To write the necessary standards, the Access Board created the Telecommunications Access Advisory Committee, which involved government officials, industry, and people with disabilities in a collaborative effort at articulating the requisite functional and performance standards. Utilizing the Electronic and Information Technology Access Advisory Committee (EITAAC), the Access Board used this approach again in developing the standards to implement Section 508, and it is a method that may be useful for building industry-consumer consensus in other E&IT access settings, as discussed further in Chapter VI.

The third major contribution made by Section 255 is the guidelines' embrace of the notion that technology cannot be usable unless instructions, manuals, and similar sources of assistance are accessible as well. Accordingly, manufacturers and service providers are obliged to find effective ways for making this information (including information about the accessibility features of the product or service) available to customers and others who might need them.

One major limitation of Section 255 concerns the scope of telecommunications functions and services covered. Not every function or service that we perform or receive through the telephone network is covered by Section 255. Three new terms must be introduced into our discussion to

explain these distinctions: "basic" services, "adjunct-to-basic" services, and "information" services.[35] Of these three categories, only the first two are covered.

Historically, voice telephony was the way most people communicated over the phone and hence was what the law referred to in its coverage of telecommunications services. Because of this statutory and regulatory history, the FCC has construed Section 255 to cover these "basic" voice telecommunications services. The FCC has also defined Section 255 to cover a class of closely related services categorized as "adjunct to basic" services.[36] Broadly speaking, these are the services necessary to make or receive phone calls or services that as a practical matter are involved in gaining access to the telecommunications network. They include interactive voice response systems and voice mail, call waiting, speed dialing, call forwarding, computer-provided directory assistance, call monitoring, caller identification, call tracing, and repeat dialing. Not covered by Section 255 are information services such as data transmission (including email) and pictures.

From these distinctions between covered and noncovered services, certain important implications follow for CPE. CPE is covered by Section 255 only to the extent such equipment is designed for use in performing or providing covered services. This issue will be discussed further in Chapter VI.

C. Section 508

Section 508 of the Rehabilitation Act was amended substantially in 1998 and now represents the most far-reaching source of legal authority for accessible E&IT—a term it introduced into this field. The law requires most federal agencies to "procure, develop, maintain and use" only accessible E&IT for their own use or for use by the public. The statute differs from conventional civil rights laws in imposing affirmative obligations on federal agencies that must be met well in advance of the occurrence of any discriminatory impact upon an individual with a disability.

The scope of E&IT under the law is broad. No such limitation as that just noted under Section 255 applies here. As the 508 standards define it,

> Electronic and information technology. Includes information technology and any equipment or interconnected system or subsystem of equipment, that is used in the creation, conversion, or duplication of data or information. The term "E&IT" includes, but is not limited to, telecommunications products (such as telephones), information kiosks and transaction machines, World Wide Web sites, multimedia, and office equipment such as copiers and fax machines. The term does not include any equipment that contains embedded information technology that is used as an integral part of the product, but the principal function of which is not the acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. (36 C.F.R. Sec. 1194.4)

The reasons why 508 is already so great a landmark in the history of E&IT access are legion. From the most practical standpoint, it is expected to exert a powerful influence on design practices throughout industry, as manufacturers are unlikely to maintain two distinct lines of otherwise similar products, an accessible one for federal agency customers, and a less or inaccessible one for everyone else. As noted in Chapter II, harnessing the leverage of the government's enormous purchasing power is in fact one of the main objectives of the law.

Although Section 508 is revolutionary in the requirements it imposes on government, it contains a number of structural features reminiscent of Section 504, the ADA, and other disability civil rights laws. For example, various circumstances exist, including "undue burden," under which agencies can avoid complying with some of its requirements. When undue burden is invoked to justify noncompliance with one or more of the requirements of the law, agencies must document the reasons for their inability to comply. The definition of undue burden used in Section 508 is the same as that used under the ADA, but although considerable experience has been amassed in

applying this concept under the older law, its implementation here raises many questions. These will be discussed at greater length in Chapter IV Section B.2.

Perhaps Section 508's most significant immediate effect has been the occasion it offered for the Access Board to develop, through the use of the EITAAC, detailed functional and performance standards operationalizing what accessibility means in application to a broad range of E&IT devices and services. The existence of such standards should contribute significantly to enforcement of E&IT access rights under a number of other civil rights laws.

In this connection, Section 508 is unique in representing the most sophisticated model to date of a civil rights law that closely integrates accessible design and enforcement strategies. This law is an accessible design statute in that it mandates actions that might not be possible or if possible would be far more costly if doing them had to await the appearance of a person claiming discrimination as a result of E&IT inaccessibility. But Section 508 combines this feature with strong and clear enforcement by creating a civil rights remedy for its violation. The law provides that covered agencies must establish complaint procedures modeled on those used for handling Section 504 complaints for use by people who claim their E&IT access rights have been denied.[37] Nowhere else is the right to seek redress for inaccessibility so clearly established.

The right to file a complaint under Section 508 is not as broad as the requirements the law imposes on federal agencies. That is, the complaint mechanism is available only for violations of the section in the procurement of E&IT. Violations relating to the development, maintenance, or use of E&IT internally or to the post-procurement activities of the agency cannot form the basis for a successful 508 complaint. But this does not mean that individuals whose access rights are denied by non-procurement-related violations of Section 508 are without recourse. Such persons may well be able to maintain a complaint under Section 504 if they are members of the public and under Section 501 if federal employees, based on whatever denial of access has actually occurred.

In those cases where a 508 complaint is viable, both the similarities and the differences between the 504 and 508 legal standards are important to remember. One critical difference is the absence from Section 508 of any "program accessibility" defense of the kind that could be raised to a claim of E&IT inaccessibility under Section 504. Under Section 504, as with Title II of the ADA, the obligation to make E&IT directly accessible and the option to provide the information by other means form a continuum. Agencies can argue that the availability of an adequate alternative to accessibility reduces the obligation to provide it. If the information is provided, they can argue that the requirements of program accessibility have been met.

But under Section 508 this program-accessibility argument is not available. Only after it is determined that the E&IT cannot be made accessible does the question of alternatives become relevant. The determination of whether accessibility is possible or required must be made without reference to alternative strategies. (The differing legal standards applicable to determining the sufficiency of access measures under Sections 504 and 508 are further discussed in Chapter 4 Section D.3.2 below.)

As with any far-reaching new law, many questions surround 508 that only time, experience, and administrative or judicial decisions will resolve. We will address the most urgent of these questions in the next chapter. For the moment, these unresolved questions include the following:

When does the nature of a federal contractor's information-dissemination responsibilities under a contract bring the E&IT used in fulfilling the contract under the coverage of 508? When, if ever, do the requirements of E&IT accessibility extend to documents, forms, or other materials generated or disseminated by the covered E&IT? How will the primarily financial "undue burden" exception be applied to the U.S. government?

Questions such as these are critical, not only to the long-term impact of Section 508, but also more immediately to how the law is administered and to the kind of technical assistance provided about the law (see Chapter IV Section B.3).

For example, a federally owned public computer terminal that distributes information or forms must be accessible, meaning that it must be independently usable by people with disabilities. But does it follow from this requirement that the forms it yields must be accessible as well? Similarly, when a federal agency uses E&IT, such as a computer printer to generate a personalized letter to a member of the public, covered equipment is certainly being used. Does this mean the agency has any obligation to make the informational product of that E&IT accessible, or to make the information available to the citizen through alternative measures? Probably not, at least not under Section 508, but only time and the further evolution of our values will tell.

Also still subject to speculation at this early point but of great importance are the questions surrounding interpretation and application of the undue burden concept here. The 508 Final Rule defines undue burden as

> Undue burden means significant difficulty or expense. In determining whether an action would result in an undue burden, an agency shall consider all agency resources available to the program or component for which the product is being developed, procured, maintained, or used. (36 C.F.R. Sec. 1194.4)

Much hinges on the definition of "availability." Does the law contemplate the exercise of discretion by agency heads, so far as such discretion exists, to move funds among internal units or budget categories? Does it ever require a department or agency to seek supplemental budget appropriations to meet the requirements of the law? Does the law create a situation where compliance by larger agencies will be easier than by small? And in cases of government-wide or

multi-agency procurements, what agencies' available resources are taken into account or pooled in determining and allocating relative cost burdens? As this group of questions suggests, governmental accounting and budgeting practices may have an important role to play in the destiny of Section 508.

Chapter IV

Current Status of Accessibility Implementation and Enforcement

This chapter reviews existing resources and procedures for implementing electronic and information technology (E&IT) accessibility in and by the Federal Government. Doing so is complicated by the fact that Section 255 is relatively new, and Section 508 will not come fully into effect until June 21. Therefore, the mechanisms and experience of implementation and enforcement under these two laws are limited. Nevertheless, because many of the same approaches (technical assistance [TA], regulations, complaint receipt, and adjudication) are utilized under all of the laws, some findings even with respect to the new statutes are possible.

A. The Context of Accessibility

Do the government's plans and activities reflect the values of inclusion, and do they contain provisions for ensuring that individuals with disabilities will have the same access to e-government services or employment that other people do? Depending on one's point of view, the government's efforts to utilize electronic communication can be regarded as substantial or as inadequate. In the case of government Web sites, for example, the Paperwork Reduction Act and other laws and policies have contributed to their development and rapid proliferation. A recent study found that only 15 percent of government Web sites (state and federal) met standards of accessibility.[38]

The laws and regulations under which we all live are among the most important categories of governmental information. From the standpoint of accessibility to people who use computers (including those with disabilities who have access to the Internet), federal regulations as published in the *Federal Register* and codified in the *Code of Federal Regulations* are readily

available. Included are those regulations bearing on the three statutes of concern to us here. However, with sub-regulatory authorities, ranging from interpretive guidances to administrative law decisions, the picture government-wide is more mixed. Partly, of course, the problem is that agencies vary in their ability or zeal to make this array of materials available to the public at all, though the trend is markedly in the direction of Web posting.

A review of the Web sites of the major agencies involved in implementing and enforcing the three information access civil rights laws (Department of Justice [DOJ], Equal Employment Opportunity Commission [EEOC], and Federal Communications Commission [FCC]) indicates that accessibility has been institutionalized as an element of their information-dissemination practices, and that the information they make available via the Internet is by and large accessible to computer users with disabilities.

As far as the presentation of these Web sites is concerned, the EEOC Web site contains an excellent explanation of the reasons underlying its accessibility policy,[39] and the FCC, through its Disability Rights Office, not only maintains a listserv for those interested in the Commission's disability-related proceedings and orders but also provides a portal through which concerns about the accessibility of particular documents can be expressed.

Web sites are not the whole story of E&IT accessibility, however. A significant proportion of people with disabilities, like a large number of Americans as a whole, do not have access to the Internet. A recent Department of Commerce study found that people with disabilities were only half as likely to have access to the Internet as other Americans.[40] And Americans with disabilities from culturally diverse backgrounds have an even lower level of access to the Internet. This disparity is potentially more serious for people with disabilities than for the population at large. Most people who do not have Internet access can go to local libraries and read the regulations at no charge. But for persons with disabilities who may face barriers in transportation, physical access, or print media access, this is not always so easy. Moreover, as libraries make ever greater

use of computers, many of the E&IT access issues that people with disabilities face at home or work are also encountered in these public settings.

In terms of non-computer-access, the agencies charged with enforcement of our e-civil rights laws (principally DOJ's Disability Rights Section, the FCC, and the EEOC) have done a creditable job of making their proposals, final rules, and other documents available in alternative formats for people who request them. Nevertheless, anecdotal reports from consumers suggest that in some cases the lead-time required to receive these documents can be longer than they consider acceptable. When outside contractors are used to produce or distribute documents, agencies may or may not have procedures in place for monitoring the performance, timeliness, formatting, and customer-relations practices of these fulfillment contractors.

B. Document Contents

1. ADA

For the Americans with Disabilities Act (ADA) alone, enforcement responsibility is divided among at least a half dozen federal agencies, including the EEOC (Title I); DOJ (for most claims under title II and all claims under title III); the Department of Education (for certain claims arising in public education under title II); the Department of Transportation (with respect to title II claims outside the scope of this study); and the FCC (Title IV).

The National Council on Disability's (NCD) recent report on the ADA, *Promises to Keep: A Decade of Federal Enforcement of the Americans with Disabilities Act*, analyzes the enforcement practices of all these agencies in detail. We do not propose to duplicate and cannot add to that exhaustive study here. Instead we propose to suggest those respects in which the current

regulatory and administrative framework may be either especially well-suited or in need of changes, if it is to effectively address E&IT access issues.

Although the documents themselves are accessible, the regulations issued by the implementing agencies in their respective spheres of responsibility contain little or no guidance or information about access rights to E&IT.

1.1. The Department of Justice

To illustrate the paucity of fresh references to E&IT issues, the examples provided in DOJ's Title II and Title III regulations concerning what constitutes auxiliary aids and services have not been modified since their publication nearly a decade ago, and as such refer only to a few of the most prominent technological options available at that time.[41] Forthcoming revision of the Americans with Disabilities Act Accessibility Guidelines may help to bring the regulations up-to-date,[42] but at present the absence of computer-oriented or E&IT-based examples and the lack of reference to requirements that may be applicable to E&IT deprive the DOJ regulations of some of the vitality and relevance they should command.

In particular as noted in Chapter III Section A.3 above, the failure of the regulations to include any guidance regarding the Department's position on Internet coverage under Title III is disturbing, for it suggests an unwillingness on DOJ's part to tackle this growing area of e-commerce, a doubt about the soundness of its analysis or of its ability to enforce the law in this area, or a fear that the courts will not sustain DOJ's interpretation. As the agency vested with responsibility for enforcing the ADA, DOJ has the greatest expertise on its meaning and would ordinarily be deferred to by the courts if its interpretations of the law were reasonable. If the Department's considered opinion is that Title III covers public accommodations provided through the Internet, that decision should receive far more visibility and follow-up than it has.[43] Given the growing importance and transformative impact of e-commerce and the Internet,

consumers, businesses and policymakers alike deserve and need to know what the primary enforcement agency believes the law expects of them.

In Chapter III Section A.3, we suggested that one reason for DOJ's hesitance to articulate a Title III Internet policy may have been the Department's concern that no objective means existed for evaluating Web site accessibility. We suggested that publication of the Access Board's 508 final rule substantially eliminated this concern. But almost a year before publication of the final rule, DOJ developed and utilized its own Web page accessibility and software accessibility checklists which were disseminated to federal agencies as part of the electronic accessibility self-evaluation questionnaires distributed in early 2000 and used as the basis for DOJ's April 2000 report, *Information Technology And People With Disabilities. The Current State Of Federal Accessibility*.

Because DOJ declined to be interviewed for this study, no authoritative explanation of its internal processes and communications can be offered. We are dismayed, though, to learn that the Department had Web accessibility standards that it believed were good enough to be used in the 508 self-evaluation process but was unwilling to apply these standards in any of the other contexts where definition and clarification of the meaning of Web access were so desperately needed and so long overdue. DOJ has yet to provide any guidance regarding the specifics of Title III application to the Internet, though the Department now has its own checklists (derived from the private sector guidelines developed by the World Wide Web Consortium [W3C])[44] and the Access Board's parallel public sector guidelines on which to draw.

1.2. The Equal Employment Opportunity Commission

In its three major documents for internal and public use bearing on enforcement of Title I of the ADA, EEOC acknowledges the potential role of "information technology" and "adaptive equipment" in the occurrence and investigation of employment discrimination claims. In its

Reasonable Accommodation Information Report Form, used by staff to document investigative procedures and findings, item #9 in its checklist of issues to be addressed asks whether such adaptive equipment was requested by the employee.[45] Likewise, its major enforcement guidance to employers, issued March 1, 1999, reminds them of their obligations regarding adaptive equipment and information technology in the reasonable accommodations context.[46]

This usage of the term "adaptive equipment" points up a major nomenclature problem associated with raising awareness of E&IT accessibility. The term is not widely used in other contexts and has been largely superseded by the term "assistive technology" which entered our law in the Technology-Related Assistance for Individuals with Disabilities Act of 1988 and which has subsequently been adopted in successive amendments to statutes governing major disability services programs such as the Rehabilitation Act and the Individuals with Disabilities Education Act.[47]

Conversations with EEOC staff indicate that the terminology they use is well-established in the employment discrimination field, and further that terms such as "assistive devices" would be confusing to human resources professionals who would regard such a term as referring to personal devices (like hearing aids or eyeglasses), which the ADA expressly excuses employers from having to provide. Nevertheless, greater uniformity of language across programs and statutes must be achieved if the growing complexity of issues and concepts of E&IT accessibility is ever to allow development of consensus around broad policy values.

Far more problematic is the way Title I's enforcement obligations operate. In all of its enforcement documents and guidances, EEOC makes clear that the obligation for employers to provide adaptive equipment or information technology is a matter of reasonable accommodations and as such is predicated on a request or expression of need by an employee. Nowhere has EEOC reminded employers of the potential benefits (including avoidance of discrimination complaints and reduction of accommodation costs) that might flow from early and systemic attention to

acquisition of accessible E&IT infrastructures (office equipment, intranets, pagers, etc.). The Commission maintains that since such proactive or preemptive measures are not required of private sector employers by ADA, it lacks authority to issue such guidance. But the Commission does offer covered employers a variety of advice on many subjects and could easily upgrade the amount and quality of nonbinding advice and information it offers on E&IT accessibility or part of its TA/training efforts. The growing importance of E&IT in the performance of the "essential functions" of so many jobs cries out for guidance from the Commission to the disability and business communities. In Chapter VI we will discuss what form such guidance should take and how E&IT accessibility is analogous to other ADA regulations which require employers to implement procedures that protect against discrimination before it takes place.

Another area of concern relates to the differentiation in EEOC's guidances between the responsibilities of private sector employees and those of public sector employers. Although EEOC has issued a guidance specifically concerned with establishment of reasonable accommodation procedures by federal employers,[48] the Commission has yet to come to terms with the implications of Section 508 for employment discrimination claims against federal employers arising under Section 501 of the Rehabilitation Act. In Chapter VI we make recommendations concerning the extent to which EEOC should regard federal agency compliance or noncompliance with Section 508 as evidence in employment discrimination cases and concerning other key issues posed by the intersection of Sections 508 and 501.

One final concern arises from EEOC's documentation of resources. Although each of the major enforcement and informational documents reviewed contains a resource list of agencies or organizations with expertise on various accommodations issues, the listings for TA in connection with E&IT accessibility are extremely limited. RESNA (Rehabilitation Engineering and Assistive Technology Society of North America, through which EEOC indicates state Technology-Related Assistance for Individuals with Disabilities Act of 1988 projects can also be located) is the one organization mentioned. While RESNA represents an excellent starting point for all disability- and technology-related inquiries, the absence of TA resources with a more

specific E&IT accessibility focus is striking. We did not determine how and how often such resource lists are updated.

1.3 The FCC

This report does not deal in any detail with the FCC's involvement in ADA enforcement. The Commission is not charged with any major E&IT-related responsibilities under the three civil rights titles of the law. But this is not to say that the FCC does not have an important role in the implementation of Title IV through its certification and supervision of state-based telephone relay systems and through its backup role in adjudicating complaints against state relay services if state authorities cannot satisfactorily resolve them within six months.

Certainly relays can properly be characterized as E&IT services, and they are likely to become more so as the technology involved in implementing these systems advances.

2. Section 508

Most of the regulations needed to implement Section 508 are yet to be written. More federal agencies, each with their own procurement regulations and culture, will be more involved in the implementation of this new law than in the enforcement of any previous disability rights statute except Section 504. Nevertheless, the guidelines issued by the Access Board along with the Notice of Proposed Rulemaking (NPRM) and Final Rule incorporating the provisions of the Access Board guidelines into the Federal Acquisition Regulation (FAR) have been published.[49] From these, certain difficulties in the implementation of accessibility can already be foreseen. Although this report is not intended as an implementation guide for Section 508, the issues presented in the relevant rules and regulations must be discussed because of their potentially profound impact on the accessibility of the E&IT covered by this law.

While the regulations issued by the Federal Acquisition Regulations Council (FARC) will largely dictate the form and content of each agency's implementation of the law, the great variation in agency styles, histories, resources, and needs leads to concern that some agency-by-agency regulations may imperfectly mirror the federal mandate, as sifted through the two overarching levels of regulation and instruction provided by the Access Board and the FARC.

The federal agency self-evaluation process administered by DOJ (see Section C of this chapter) may help to prevent such discrepancies by revealing any agency rules or practices that depart from the premises of the law. But if this does not happen, other means for reviewing each federal agency's approach to 508 will become imperative.

Thus far, nothing in the Federal Government's implementation of Section 508 suggests the degree of foresight or the level of centralized decision making required to make the law's accessibility policy consistently effective. One problem in this regard concerns the procedures specified in the FAR (issued April 25, 2001) for agencies to make undue burden claims. Under the rule, while agencies are required to document the reasons why a particular requirement would be unduly burdensome, and while they are required to retain this documentation in the contract file, no provision is included for monitoring or reviewing such undue burden determinations. They need not be forwarded to General Services Administration (GSA) and need not be made available to the public, though the FAR indicates that they are subject to disclosure under the Freedom of Information Act.

Significant concern is warranted over whether the regulation gives adequate guidance on the meaning of undue financial burden. In its final rule the FARC (reacting to comments made in response to the proposed final rule) indicates that the case law and other authorities amassed under the ADA for interpreting the undue burden concept are sufficient to facilitate its application to 508. The undue burden concept has been applied to Section 504 of the Rehabilitation Act on which the ADA's use of the law is largely modeled, but because Section

504 cases involve issues of individual accommodation, application of the principle on a systemic basis as called for by Section 508 remains to be explored.

The particular barrier to accessibility here arises from the use of the standard of significant difficulty or expense. Significant or excessive or undue expense is not defined in the regulation other than in terms of exceeding the "resources available" to the "agency or component." Unless determination of undue cost is to become a captive of the accounting precepts and budget categories used by the Federal Government, this reference to "available resources" raises more questions than it answers. For instance, in determining the available resources of an agency or sub-agency component, is the requiring or contracting officer expected or permitted to take into account any discretion the agency head may have to reallocate funds among units or between budget categories? Are agencies permitted or expected to apply to the Office of Management and Budget (OMB) for the various exceptions and flexibilities OMB has the authority to grant, or to request inclusion of an accessibility line item in a supplemental or regular annual budget request to Congress?

While the answers to some of these questions can be plausibly guessed at through analogy to other established procurement policies, and while no regulations can anticipate all conceivable questions that may arise in the day-to-day administration of the law, publication of rules as vague as these on so many key points can be characterized only as an invitation to confusion. Left to improvise, agencies will do so in good faith, but all too likely with a non-uniform array of results.

3. Technical Assistance and Training Materials

TA and information outreach (including distributing materials, responding to questions, and other activities) represents one of the chief means available under all three statutes for conveying information about the law and for maximizing voluntary compliance among covered entities and

sectors. In any area of complexity and rapid change, concern is justified over the effectiveness of TA.

In the E&IT setting, TA confronts some special issues and complexities. Degradation of information is a constant danger, but here, obsolescence may be an even greater risk. What is needed therefore are mechanisms for ensuring that TA partakes of the most up-to-date legal and technological information. Because TA and training materials can be updated far more rapidly than regulations, these resources bear the heaviest responsibility for timeliness, especially in an area where generations of new technology succeed and supersede one another over ever-shortening product cycles.

DOJ's approach to TA in connection with the Internet, public access computing, and other E&IT is once again a case in point. The Department's TA resources for various audiences do not appear to highlight either the potential role of E&IT in meeting the requirements of the law or changes in law or technology pertaining to the role and potential of E&IT.

In defense of the enforcement agencies, TA resources may be so limited that providing information on particular topics of concern is not always feasible. But this is the reason for setting priorities. Precisely because E&IT access rights are new and unfamiliar, they need special attention and nurture.

TA resources for implementation of Section 508 are beginning to appear. Through the creation of an accessible, centralized Web site at www.section508.gov and through TA contracts to organizations for outreach to specified audiences, the Access Board, GSA, and other agencies are off to an encouraging start. Still, review of materials generated thus far under these contracts leads to concerns that some key E&IT issues may not be addressed to the degree necessary. Effective TA under Section 508 will require new models and variations which the Federal Government may or may not yet be equipped to deliver or even to request.

To understand why this is so, consider one crucial difference between the ADA and Section 508. When an ADA-covered entity implements an accessibility feature, reasonable accommodation, or change in policies, practices, or procedures, it is not ordinarily the responsibility of the Federal Government to explain these enhancements to end-users or to provide the training and technical support necessary to ensure that end-users can take advantage of accessible E&IT. Similarly, apart from its role as facilitator of communication between telecommunications customer and equipment manufacturer or service provider, it is not the responsibility of the FCC to sit with the customer and explain and demonstrate how the accessible technology works.

By contrast, because the entities implementing E&IT accessibility under Section 508 will themselves be Federal Government agencies, TA in this realm will have to include both the empowering of the agencies to comply with the requirements of the law and the empowering of federal employees and members of the public to utilize the E&IT that has been procured and put into use as a result of that compliance. These two forms of TA, though closely intertwined, are also quite distinct. Only with balanced, integrated attention to the needs of both agencies and end-users can the purposes of Section 508 be fully accomplished.

A review of TA resources developed in support of Section 508 thus far suggests somewhat greater emphasis on the issues surrounding federal agency compliance than on the problems, practices, and needed resources associated with making 508 work at the end-user level. This early emphasis is understandable given the exigencies of putting so significant and unprecedented a law into effect over a relatively short period. However, the parallel needs for human and technical resources at the far end of the process must not be overlooked, lest inadvertent inattention to community outreach, training of the public, and other key links in the accessibility chain result in reduced use and community support of accessible E&IT. Friends and foes of accessibility alike will be eager to know how many people avail themselves of E&IT accessibility under Section 508. Appropriate TA will plan a key role in determining whether the number is large and whether the response is positive.

4. Record-Keeping

Because E&IT access has never been a discrete subject of civil rights enforcement, few if any records or record-keeping systems are organized in ways that can shed the needed light on the global issues or the settings in which information access problems exist or are most likely to arise, or on the strategies that have proved most successful in enforcing and improving E&IT access. Records organized around type of disability, nature of entity complained about, action taken by enforcement agency, amount of money recovered for discrimination victims, and other traditional categories, while invaluable, are not necessarily sufficient to meet the needs of E&IT access.

Building on existing data collection techniques, information categories, and records-maintenance formats, the agencies involved in implementing all three statutes have a potentially historic but time-limited opportunity to address the issues of record-keeping and data collection in new ways that will allow problems, successes, and needs in the E&IT area to be detected early and dealt with promptly. Irretrievable opportunities may be lost if careful attention is not paid at the dawn of 508 to developing data sets, data collection techniques, and strategies for effective information sharing and coordination among the increasing number of agencies involved in 508 enforcement. Specifics of such record-keeping innovations will be discussed later in Chapter VI. Information on the range and number of products and contracts changed by application of Section 508, the costs and perceived benefits to each agency of the 508 process, the difficulties experienced by agencies in implementing the law and obtaining authoritative guidance on its interpretation, the number of employees and members of the public availing themselves of the law, and the techniques used to provide awareness of and training in the use of accessible E&IT. All of these will be critical as elements of a cross-agency record-keeping process contributing to amassing the kind of knowledge base that not only informs but persuades public policymakers about agendas and choices. Among other things, such information should greatly enhance the depth of the biennial reports the Attorney General is required to submit to the President and Congress.[70]

C. New Forms of Documentation

1. Agency Self-Evaluations

Self-evaluation and self-study are by no means new concepts in civil rights law. Self-assessment was an important tool under the ADA, particularly for Title II entities, and its potential value as a means of anticipating problems and achieving compliance is considerable. Self-assessment under the ADA though was largely a private, internal matter. Section 508 takes self-evaluation to a new level of visibility and importance.

Under the law, "the head of each federal department or agency shall evaluate the extent to which the E&IT of the department or agency is accessible to and usable by individuals with disabilities compared with the access to and use of the technology by individuals who are not individuals with disabilities...."[51] The statute also calls for the Attorney General to submit biennial reports to the President and Congress including information and recommendations on Section 508.

To implement the agency-by-agency reporting process, DOJ has adopted a questionnaire survey format that is self-administered by each agency. The first report on these surveys was issued in April 2000,[52] and this year's questionnaires were sent out on January 18.[53]

Depending on how they are used, these questionnaires can be of enormous value in their own right, and also demonstrate a dynamic new way of monitoring civil rights enforcement in other multi-agency settings. How these questionnaires will be used and whether respondent agencies will feel free to be candid will be determined by whether agencies experience the process as designed to help them or to catch their mistakes and publicize their shortcomings.

Interviews with participants in the 508 implementation process suggest a high level of commitment and enthusiasm within the federal service. Under these circumstances, indications point to the questionnaires being received positively by many agencies thus far. But once we reach a point where compliance is no longer a prospective issue, where slowness in achieving Web site accessibility or in establishing the internal procedures about which the questionnaires inquire becomes an ongoing rather than merely potential violation of the law, these receptive attitudes may change. In Chapter VI we will suggest strategies by which failures or delays revealed by the questionnaires can be put to positive uses and followed up with supportive and targeted TA.

One additional caveat about this self-assessment process must be noted. While the report reflects that department personnel checked various responses, no systematic procedures exist for independent monitoring of these reports. There is always danger that agencies and officials will be overly optimistic regarding the success of their accessibility efforts, or that because subjective factors play a part in the reporting process, agencies will use different standards in answering some questions.

2. Market Monitoring Reports

Another potentially useful form of documentation in broadly evaluating progress toward accessibility is the market monitoring report. The Access Board developed this reporting format as a means of monitoring telecommunications industry progress in meeting the goals of Section 255.[34] According to interviews with staff from the Access Board and the FCC, its continued use is not certain, but the mechanism is worthy of exploration and possible adaptation for other broad-based efforts to track progress toward accessibility among various industry sectors or product lines.

The Market Monitoring Report allows the identification of industry sectors or product lines where progress may not be as fast as expected. Resources can then be brought to bear in an effort to find out why and develop approaches useful in accelerating the pace of progress. Again, in keeping with the overall approach of the Section 255 implementing agencies (Access Board and FCC) the approach is not punitive. Rather, the intention is to find methods and partnership possibilities that can constructively contribute to the goals of the parties.

D. Agency Practices and Culture

As NCD's ADA study powerfully portrays, enforcement agencies varied greatly in every aspect of their implementation of the law. Even within a single agency, administrative components differed in many aspects of their approach. For this reason, our investigation of E&IT implementation efforts to date needs to include practices and activities of civil rights agencies that arise from custom and practice as well as from written regulations or overarching law.

1. Case Finding

No one would welcome a world where civil rights enforcement agencies regarded apprehension of wrongdoers as their exclusive mission or conducted themselves in an inquisitorial manner. But the limitations on enforcement resources together with the need to set priorities dictate that some proactive effort be made to identify and address those problems of greatest seriousness. Accordingly, case finding is an indispensable component of any effective program of civil rights law enforcement, just as it has always been of all laws aimed at the public good. From public health inspections of restaurants to police patrolling of highway locations where speeding is common, case finding is a necessary part of all our legal institutions.

Case finding may be both easier and more highly leveraged in the field of E&IT than in many other contexts. Frequently E&IT access issues will arise from national trends in technology design, such as use of touch screens, that have an impact on large numbers of people. Whereas many traditional discrimination cases revolve around exquisitely complicated disputed and highly individualized fact patterns, the issues giving rise to E&IT cases will often be much clearer, if not necessarily easier to resolve. For these reasons, the energetic identification and pursuit of key E&IT cases can be highly leveraged, redounding to the benefit of large numbers of people and making investment in E&IT case finding an extremely cost-effective commitment of scarce time and resources.

For example, if the newest release of a major Web browser is inaccessible to screen-readers, or if a major public or private Web site has become inaccessible to one or another subgroup of users with disabilities, the impact is likely not confined to one or even a few individuals. Though the time and effort invested by the enforcement agency in developing the case may be no greater than that required for working up other kinds of cases, attention to the problem can directly benefit larger numbers of people.

Major national civil rights cases have been mounted before under ADA against car rental chains, among others, but the resolution of these cases, though frequently involving civil penalties and payment of damages, has typically focused on prospective modifications in policies or procedures or on the tightening of management oversight and the upgrading of training. In those relatively few settlements involving technology, the type of equipment involved has typically been add-on assistive technology such as hand controls for rental cars. No cases have been found in which the respondent was required to engage in research and development or to retrofit existing E&IT.

In the foreseeable kinds of major E&IT cases, the stakes may be much higher for the defendants, and the potential middle ground needed for settlement may be harder to find. Of course there is

always risk that major case finding will produce major resistance, particularly on the part of large and powerful producers and suppliers of E&IT, including recourse to the media or political pressure.

Regardless of whether the enforcement agency finds the major case or the case finds the agency, E&IT cases with national implications are likely to involve technical complexities that have not typically confronted litigators before. For one thing, more parties may be involved. In the archetypal ADA suit against a hotel chain, the chain, one or more of its franchisees, and possibly an architectural firm are likely to be involved as respondents. But with modern interconnected E&IT systems, allocation of responsibility for the problem, let alone allocation of the costs of remedial action including potentially expensive retrofitting, may prove contentious and difficult. The negotiations between advocates and banks over automated teller machine (ATM) accessibility discussed in Chapter III Section A.3 exemplify this potential. Some banks contended that their ability to provide accessible machines was controlled by the design decisions made by machine manufacturers. On the other hand, manufacturers argued that they could and would do whatever their customers wanted but said they had never been asked to incorporate accessibility features such as speech output. Additionally, disputes arose over whether the solutions were hardware or software based and as to the role of the telecommunications service providers (telephone companies) whose networks kept the machines in contact with a number of central computers.

Agencies do not generally formalize their approaches to case finding. For that reason, disagreement is readily possible over what approach an agency is taking or what goals—case quality, volume, ease of success, funds recovered for complainants, important sectors put on notice—the enforcement agency is seeking to achieve. The impression is widespread that the enforcement agencies have not been aggressive in finding or pursuing major cases under the ADA.

With regard to the FCC's approach to case finding and litigation strategy under Section 255, the Commission's statements supplemented by interviews indicate Commission reliance on a strategy of initially trying to resolve complaints by fostering dialog between the end-user and the manufacturer or vendor. The Commission has indicated its intention to rely heavily on complaints rather than on case finding in order to determine where the problems are. Concern exists as to what the Commission will do if and when the consumer complaint process discloses problem products or services.

In this connection Section 255 may become a hostage to broader philosophical changes in the overall attitude of the FCC toward legal enforcement and intervention in the market economy. The FCC has gone on record on several occasions as being opposed to an activist or interventionist Commission. Thus while the Commission's commitment to E&IT accessibility remains high, traditional models of enforcement may potentially play a lesser role in its implementation strategy.

Section 255 marked a new plateau for FCC involvement in civil rights. Of course the Commission, like other federal regulatory agencies, had previously been responsible for its own internal practices as well as for enforcement of nondiscrimination requirements applicable to the entities it regulated. But with Section 255, the FCC was made responsible for a new dimension of civil rights enforcement that had no parallels in legislation or in the experience of other agencies. If the FCC were to regard Section 255 as an example of the activism and regulatory assertiveness to which the FCC is philosophically opposed, this important civil rights protection could be caught up in a deregulation net where it does not really belong.

Section 508 presents an entirely different picture so far as litigation strategy is concerned. In other civil rights settings, the government can be involved either in bringing a case or as an intervenor. Under the ADA there would be virtually no occasion for the government to be the defendant or respondent. By contrast, if administrative complaints or lawsuits are filed under

Section 508, the Federal Government, as a whole or in the guise of one of its departments or agencies, is by definition the respondent. This situation essentially precludes use of many established mechanisms for influencing the direction of the law or for using litigation posture as a means for setting or influencing public policy.

When cases against the Federal Government go to court, the respondent agency is usually represented by DOJ, whose job is to defend the government against charges of unlawful activity and of course to protect it against exposure to financial liability or against rulings that would hamper its freedom of action or contradict its policy goals. From neither the public relations nor the legal standpoint does the government like to admit wrongdoing or concede liability. But where the very DOJ that is called upon to represent an agency in a suit over 508 also has knowledge through the agency's self-evaluation questionnaire that the agency is out of compliance with the law, serious structural tensions may emerge. Exactly how DOJ will carry out its dual responsibilities under Section 508 is a matter of concern to all advocates of this new law.

The government's role as defendant also prevents it from acting as a friend of the court through filing amicus briefs. This deprives the government of one traditional tool for contributing to the public policy debate surrounding adjudication of certain key issues.

2. Mediation

Faced with case backlogs and the recognition that litigation, though sometimes necessary, in a sense represents failure, ADA enforcement agencies, consistent with the mandate of the law, have endeavored to develop and utilize alternative dispute resolution (ADR) techniques including mediation. In that connection, resources have been dedicated to training mediators in the requirements of the law and about related issues. The EEOC, for example, includes training mediators in its current five-year strategic plan.[55]

Depending on how a particular agency approaches the subject, extending mediation to the E&IT setting will pose problems not usually encountered in other contexts. Principal among the questions raised by use of mediation in E&IT is whether effective mediation of these cases presupposes the existence or availability of expert, often highly specialized, technical knowledge. Without such resources it may be difficult or impossible for a mediator to assess the merits of the claims, to have any realistic sense of what solution is technologically possible, or to know how much it might cost.

In an interview, EEOC indicated that its contractual and pro bono mediators are well-trained and experienced in ADR, the requirements of the applicable equal opportunity laws, and mediation techniques. EEOC does not believe that specialized technological knowledge is necessary for effective mediation since it is not the role of the mediator to determine the rights or wrongs between the parties.

Our research has not determined whether any civil rights enforcement agencies are currently seeking or utilizing the services of mediators with substantive E&IT or related technological knowledge. In any event, recruiting disinterested mediators with the requisite knowledge base will require creativity and outreach beyond conventional resources. In Chapter VI we will recommend measures for use by enforcement agencies to involve end-users with disabilities in the E&IT implementation process. Whether persons whose experience derives largely from the use of E&IT would be acceptable to industry and business as mediators is one possibility that should be explored.

3. Complaint Processing

Effective complaint processing is a fundamental necessity in any civil rights enforcement structure. Despite our best efforts to secure voluntary cooperation and compliance with the law, mechanisms must be available for promptly and equitably adjudicating those disputes that cannot be avoided or resolved by negotiation.

We do not deal with the ADA complaint process here. NCD's ADA report has dealt with this process. However, the emerging complaint processing procedures adopted under Section 255 and 508 are especially vital to discuss here because decisions made about these processes at this early stage can significantly affect how the law operates and, perhaps as important, how it is perceived by the public.

3.1 Section 255

The FCC has established a system whereby informal complaint intake occurs in the Disability Rights Office while the Enforcement Bureau handles formal complaints. In addition, the Commission, on its own motion, may take remedial actions or apply sanctions to telecommunications service providers or equipment manufacturers if appropriate.

Because the FCC initially contacts the defendant upon receiving a complaint, the parties themselves are likely to provide much of the information the enforcement agency might otherwise obtain through case investigation. We do not yet know what will happen if dialog between the parties fails to produce a resolution, or if there is substantial unresolved dispute over the facts of the case or over the potential of the technology. The Commission can utilize any of the investigative or information-gathering techniques available to it by law for the resolution of Section 255 complaints. The Commission also has broad discretion in the remedies and

compliance measures available to it in the event a manufacturer or service provider conspicuously violates or disregards the law.

As suggested above, only time will tell how the Commission decides to exercise its authority. One serious problem with leaving much of the gathering and presentation of evidence to the parties does emerge clearly. If the Commission relies on the parties, then it is dependent on their ability to accurately and fully assess the relevant facts. A lone consumer and a large telecommunications company will hardly be evenly matched or equally informed players. A company that tells a customer that no technological solution exists for a particular access problem may well extract from the customer an expression of satisfaction with the process, but without some independent review by the Commission or other knowledgeable and disinterested third party, there can be no guarantee that the resolution reached by the parties (and conveyed to the Commission) is in fact the only or even the best possible solution.

Another area where reliance on the parties may not be adequate involves those complaints where equipment manufacturers and service providers are jointly concerned. Without participation by the Commission, the average user has little hope of penetrating to the truth in situations where the manufacturer and service provider each claims the other is responsible for the problem or is better able to provide a solution. The predicament is akin to a non-medically-trained patient having to decide which specialist's diagnosis to accept when they completely disagree on the cause and treatment of the illness.

3.2 Section 508

With Section 508 we once more confront an entirely different and somewhat novel complaint-processing situation. As suggested earlier, an agency against which a 508 complaint is lodged will play the dual roles of defendant and jury. Over the course of 25 years, the mechanism for doing this has been developed and refined under Section 504 of the Rehabilitation Act. But in the

adaptation of the 504 complaint-handling process to the subject matter and conditions of 508, some new complexities are likely to arise.

Section 508 is revolutionary in providing a right of action and the potential for relief for federal employees or members of the public alleging violation of the law. The statute provides for covered federal agencies to adapt their Section 504 complaint-handling processes for use with 508. The law states:

> Complaints filed under paragraph (1) shall be filed with the federal department or agency alleged to be in noncompliance. The federal department or agency receiving the complaint shall apply the complaint procedures established to implement Section 504 for resolving allegations of discrimination in a federally-conducted program or activity.[56]

In obliging agencies to model their Section 508 procedures on those in place under Section 504, the law apparently gives them a choice. They can either develop a system from scratch that parallels or is modeled on 504 or use their existing 504 systems for handling any 508 complaints. As indicated above, though, these procedural similarities between the old and new statutes should not obscure major differences in how the complaint process will function.

The following key questions about 508 highlight these differences. First, the law is not clear exactly which violations of Section 508 a federal employee or member of the public is authorized to challenge. For example, can the complainant challenge the implementation of a procurement contract on the ground of its or the contracting agency's failure to comply with Section 508? If so, can the agency or a court retroactively order that the contract be modified or declared void?

Whatever the eventual answer the courts give to questions such as these, the more immediate concern is that agency 508 coordinators and administrative law judges may find themselves sitting in review of highly technical decisions made by coordinate officials with differing expertise. Even if not called on to pass judgment on the sufficiency of their colleagues' undue burden or other key determinations, these officials will still need to decide whether E&IT is accessible—specifically, whether it meets the requirements of the FAR rule. That determination is also a potentially technical one involving the need for resources and expertise that the decision makers are unlikely to possess and that are most readily available from the very officials who made the underlying procurement or design decisions.

The final question in this connection relates to what we may call the fall-back provision of the law. The law provides for alternative measures to be used for facilitating information access where accessibility or compatibility are not possible. In cases where agencies have advance knowledge that a procurement will create or result in inaccessibility of E&IT, the agency should likewise plan in advance for such alternative measures. Failure to do so may force the 508 complaint adjudicator into the position of having to fashion ad hoc remedies, which may necessitate demands on other sectors of the agency that such officials are not customarily in a position to make.

Agencies are likely to receive little guidance about what determines the adequacy of alternative measures in the 508 context. Failing any such guidance, the case law and experience accumulated under 504 will represent the best source of guidance on this point. But once again, the technology environment invests the question of what is an adequate accommodation with some intricacies that are largely new to those who will be called on to grapple with them.

Faced with this question of what constitutes an acceptable alternative measure, adjudicators may easily resort to the jurisprudence built up under Section 504. In that case, program accessibility would probably represent the appropriate substantive standard. But as noted earlier, this may not

in fact be the applicable standard. Section 504 claims adjudicators and agency planners must remember that Section 508 relates to 504 only insofar as the rights and remedies available under 504 are concerned. Even if the procedures and remedies available under the two sections are the same, the substantive standard for compliance with 508 may be higher than program accessibility, for 508's touchstone or standard is comparability. Section 508 speaks in terms of comparable access to information for persons with and without disabilities. In this connection, the law states:

> When developing, procuring, maintaining or using electronic and information technology, each federal department or agency...shall ensure, unless an undue burden would be imposed in the department or agency, that the electronic and information technology allows, regardless of the type of medium of the technology—(i) individuals with disabilities who are federal employees to have access to and use of information and data that is comparable to the access to and use of the information and data by federal employees who are not individuals with disabilities; and (ii) individuals with disabilities who are members of the public seeking information or services...have access to and use of information and data that is comparable to the access to and use of information and data by such members of the public who are not individuals with disabilities.[57]

Thus, an accommodation may satisfy the requirements of Section 504 by virtue of providing program accessibility, but fall short of satisfying 508 because it does not offer truly comparable access to information for the individual with a disability.

Nothing in Section 508 in any way suggests that the comparable access standard ceases to apply when an agency is required to resort to alternative methods. Given the almost limitless range of alternatives that may be available in various situations, the question of what comparability means takes on great importance. In Chapter VI we will suggest a three-pronged test of comparability

that agencies may find useful and that they may wish to incorporate into their planning for handling 508 complaints.

Apart from complaints from employees or members of the public, agencies are likely to face another sort of unfamiliar legal challenge under Section 508. While legal challenges to the award of procurement contracts are not new, their number is likely to increase and their character to be changed by Section 508. In planning for life under 508, agencies must therefore anticipate that disputes over whether bids do or do not comply with the requirements as well as challenges to contract awards are likely to emerge.

On one level, the notion that bidders will compete over accessibility is an attractive prospect. But on another level, this prospect may introduce delay, uncertainty, and awkwardness of many kinds into the procurement process. We do not yet know what proportional weight 508-compliance carries in the overall evaluation of goods and services proffered to the government. We do not know what will happen if bidder "A" does a better job in meeting the requirements of 508 but bidder "B" submits a proposal that is significantly superior in other respects. In the event that no bid meets all contractual specifications (including 508) the logical answer is to re-bid the procurement, but agencies may be reluctant and bidders resistant to doing this.

These and other questions, most of them not fully answerable by reference to existing procurement law, are not necessarily part of agencies' current accessibility efforts or thinking. They will soon need to be.

E. Strategic Planning

Most of the planning issues described in Section D are administrative or managerial. They do not rise to the level of the strategic. A higher level of long-range and strategic planning will also need to take account of 508 if it is to become part of the fabric of agency practice and culture.

The Government Performance Results Act of 1993 (GPRA) seeks to incorporate long-term planning and accountability into Federal Government activities. GPRA does this by requiring agencies to engage in a strategic planning process in which goals, objectives, methods, and measures of accountability are set forth. Needless to say, Section 508 is too new to have made its way into agencies' GPRA plan filings, but the general absence of disability access planning and criteria from most agencies' plans has recently led the Presidential Task Force on Employment of Persons with Disabilities to recommend that goals and objectives relating to the hiring of people with disabilities be incorporated in GPRA plans.[58]

Following on these proposals, Chapter VI will suggest ways in which accessible E&IT and its use can likewise be factored into the GPRA plans of all the major agencies enforcing the ADA, Section 255, and Section 508. While the issues surrounding E&IT accessibility may at first glance seem too insular or limited to warrant elevation to such visibility and prominence, the emphasis placed on technology generally by most federal agencies requires that this key element of technology policy receive equal and coordinated attention.

In oral comments to NCD on the first draft of this report, DOJ noted that long-term planning is built into the Section 508 self-evaluation process it administers. While this may be true, the level of accountability inherent in GPRA plans makes them a highly appropriate vehicle for institutionalizing E&IT access policies. GPRA plans are revised periodically through an established process involving broad-based consultation and consensus building within agencies. Inclusion of E&IT accessibility in such plans therefore would be an important adjunct to the planning efforts conducted around agency Section 508 self-evaluations.

F. Federal Grants and Contracts for the Performance of Work or Provision of Services

In previous sections we have discussed federal contracts for the procurement of goods and services by the government. But another kind of federal contract (utilizing federal funds for performing work or providing services to specified members of the public or nongovernmental entities) also plays a part in this story. Currently, the government funds many programs ranging from library services to one-stop employment centers to Medicare, through grants to or contracts with various state, local, private not-for-profit, and for-profit entities. To the degree that the entities receiving and spending these public funds meet the law's definition of recipients of federal financial assistance, they are subject to the requirements of Section 504, as well as to the requirements of many other federal laws. The advent of Section 508 raises new and pressing questions about the extent to which contractors, grantees, or other recipients of federal funds will be subject to its requirements.

The Section 508 Final Rule indicates that federal contractors are not covered by the law when their use of E&IT is "incidental" to the performance of a contract.[59] This means that if a private entity is contracted to create or manage a federal Web site, Section 508 has no concern for the equipment the firm uses in-house to accomplish its responsibilities. But 508 is very much concerned with whether the Web site complies with the requirements of the law, if the Web site is provided for the use of Federal employees or for the provision of federally generated or federally sponsored information to the public.

The government utilizes outside entities to provide an increasing array of information and services to the public. Indeed, the philosophy known as "privatization" largely involves substituting private sector contractors for government agencies as the providers of federally funded services. The use of managed care organizations to provide health care services under Medicare and Medicaid is perhaps the best-known example of such privatization. Depending on

one's point of view, contracts for providing services may or may not be viewed as contracts that have provision of information or provision of access to E&IT as part of their purpose.

A managed care organization providing insurance coverage under something like the Medicare Plus Choice (M+C) program is probably subject to the requirements of Section 504, according to the weight of case law interpreting the term "federal financial assistance."[60] To the degree that M+C contractors are required to make specific information about the program available to enrollees, Section 504 should require that this information be made accessible to those with disabilities. It is one thing if this required information is made available only in hardcopy, but what if the health maintenance organization (HMO) uses or is required to use Web sites, toll-free telephone lines, or other E&IT in disseminating the information? Does the use of E&IT in such a situation subject its information-dissemination activities to the E&IT accessibility requirements of Section 508, and does it matter whether the use of E&IT is mandated by the contract or simply results from the decision of the contractor?

With one exception for states receiving federal funds under Title I of the Assistive Technology Act of 1998, states are not covered by Section 508.[61] But what happens with state agencies such as employment development or labor departments that receive federal funds for the operation of one-stop centers under the Workforce Investment Act? Are these otherwise exempt state agencies transformed into covered federal contractors/grantees by virtue of this relationship? And if so, are they under any broad obligation to comply with Section 508?

One-stop centers make extensive use of E&IT, including online resources for use in looking up relevant databases and for posting resumes, job descriptions, and other information. Such one-stop centers could hardly operate as they do without the use of E&IT.

Answers to these questions go well beyond the scope of this study. Let us rest content for the moment to say that if the federal program or request for proposal necessarily contemplates or

specifically calls for the use of E&IT by members of the public in accessing federally sponsored programs or information, or if the recipient of the federal funds undertakes in its proposal to use such technology, then the better reasoning suggests that 508's requirements would apply. But in all such cases, the entity receiving the federal funds would also be subject to the requirements of Section 504, in which case information accessibility requirements also come into play.

Every federal agency entering into contracts with outside entities should bear in mind that the contracting process affords a valuable opportunity to remind their partners of their information- and E&IT-accessibility obligations under federal law. While no systematic data are available, discussions with a number of observers reveal a widespread sense that federal agencies have not exercised their authority to use the contracting and funding processes as a means for leveraging heightened E&IT accessibility. More generally, implementation of the E&IT access potential of all the civil rights statutes is inevitably compromised by the apparent failure thus far of the federal government to develop a consistent approach or philosophy about how the contract and funding processes should be used to advance information access rights of people with disabilities.

All agencies are sensitive to the charge of overbearing federal bureaucracy imposing its agendas on the nation in the guise of law. In such a climate, few agencies are likely to take the risk in isolation of aggressively using the contract process, even where the legality of doing so is not in serious dispute. How much additional leverage for accessibility could be gained by coordinated use of the contracting power cannot be known, but any opportunity not taken is an opportunity lost.

Numerous models exist for using the power of contractual relationships for encouraging or compelling E&IT accessibility. An insight into several of these models was contained in the October 1997 letter from the U.S. Secretary of Education to public school officials across the country, reminding them of their responsibilities under a number of educational assistance

programs aimed at enhancing school technology. This reminder directed their attention to the need to make new E&IT accessible and provided information about resources to which they could turn.

Depending on the law under which funds are appropriated, the agency involved, and the particular accessibility laws to be enforced, numerous contractual approaches are potentially available. Beginning with general notices like the Department of Education's, one can move up the scale to

- Specific notices in contract documents reminding recipients of their obligations;
- Certification requirements (such as those required by the National Institute on Disability and Rehabilitation Research from states as a condition for the receipt of Assistive Technology Act funds);
- Inclusion of accessibility-related evaluation criteria among the factors used to rate proposals for discretionary funds; and
- Inclusion in contracts of specific performance requirements relating to implementation and documentation of E&IT accessibility measures.

By way of extension of the self-evaluation concept, we will recommend that each federal agency that dispenses funds or administers federal-state programs conduct a review of its legal authority and of the extent to which the contract process is being used to serve relevant accessibility goals. Yet in light of the relative failure of agencies to adopt this technique of E&IT civil rights enforcement so far, the critical role of government-wide initiatives in any such process is powerfully evident.

The e-rate is one area where the ability or the wisdom of the Federal Government's use of the contract power to advance the cause of E&IT accessibility has at least been discussed.

Established under the Telecommunications Act of 1996, the "e-rate" is a program using fees collected by telephone companies from subscribers to subsidize the costs of Internet access and related communications enhancements for schools and libraries. Owing to a number of factors (including the legal authority of the FCC to impose conditions on the use of e-rate funds) and owing to the unusual status of these funds as not wholly public or private, a consensus seems to exist among those who have studied the matter that at least a rulemaking proceeding would be required before specific contract performance requirements concerning E&IT access can be mandated. Short of such a mandate, though, it has proved possible to advise funds recipients of at least the expectations that follow the money. In the case of the e-rate these expectations are that the E&IT resources made available through the subsidy will be accessible to all potential users.

Without guarantees for the accessibility of E&IT used in schools, the growing reliance of our education system on computers, multimedia curricular materials, and other forms of E&IT is likely to result in increasing disparity and disadvantage for students with disabilities. The lifelong implications of such educational disadvantage are surely evident to all. We would hardly think of building a new school that is inaccessible to students with mobility disabilities, but we seem slower to recognize the parallels for the many students with disabilities bearing on information access.

The FCC has recently issued two NPRMs modifying rules of the e-rate program.[62] While these have nothing to do with E&IT, their use suggests that such a rulemaking strategy does represent a viable approach for improving the operation of this program.

Chapter V

Findings

A. The Role of Leadership

1. Agency Variation

The National Council on Disability's study of the Americans with Disabilities Act (ADA) disclosed remarkable variation among agencies, sometimes even between the components of the same agency, in how and how well enforcement of the law was approached. In each major agency with ADA enforcement responsibility, the study was able to point to components that enforced the law effectively and others that did a less creditable job.

Many factors go into analysis of how a major multi-agency law is enforced. Features of the law itself, characteristics of the enforcement agencies, budgetary considerations, record-keeping practices, and other factors inevitably play a role. Another factor shown by the ADA study to play an important role was the attitude of each agency toward the law and its purposes and enforcement.

Any attempt to describe or account for the relative success or failure of diverse agencies in implementing pro-accessibility electronic and information technology (E&IT) policies requires consideration of all these variables. But because E&IT access efforts have thus far been carried out under a minimal institutional and legal framework, such an analysis requires more.

2. Filling the Vacuum

Despite the general lack of attention to information access and E&IT on the part of civil rights enforcement agencies in particular and the government in general, a number of federal agencies and agency components can be cited for their efforts and achievements on behalf of E&IT accessibility over recent years. For the most part, these efforts and initiatives have not generally been perceived as resulting from the mandate of any law. Rather, they have been discretionary in nature, representing some of the most progressive and enlightened expressions of policy and purpose in the government, but also going well beyond what the law has been deemed to require.

The government can certainly be faulted for not developing broad-based information access policy or infrastructure during the 1990s. The provisions of the ADA, the requirements of Section 504, and the scope of discretionary authority within the executive branch all presented tremendous opportunities for doing so that were never realized. Moreover, because the government has been deeply engaged in E&IT policy issues over the past several years, its failure to make accessibility an organic part of this process is all the more regrettable. Yet precisely because of this government-wide inaction, the strides made by individual agencies are all the more remarkable and worthy of attention both as models of good practice and for the insights they yield into how positive policy change can be effected from within.

Any attempt to list all the agencies that have taken steps to enhance E&IT accessibility is impossible and doomed to regrettable omissions. Yet the achievements of several agencies are worthy of particular notice.

- The Department of Education for its Assistive Technology Team and its model accessibility procurement contract language.

- The Assistive Technology Team (among other things) reviews proposed software and other E&IT applications for accessibility as part of the procurement and development process. It also serves as a technical assistance (TA) and training resource on accessibility issues within its own agency and for other agencies of the government.
- The department's model contract language, which was disseminated by the Department of Justice (DOJ) in its April 2000 report for use by other agencies, provides a straightforward and replicable approach to requesting and obtaining accessible E&IT.

- The Department of Defense for its Computer/Electronic Accommodations Program (CAP).
  - CAP provides TA throughout the department to identify and evaluate technology for meeting employees' accommodation needs.

- The U.S. Mint for its early modeling of Web site accessibility.

- The Internal Revenue Service and the Social Security Administration for investment in accessibility technology and training enabling a significant number of employees who were blind to retain their positions in the face of E&IT infrastructure changes that might otherwise have resulted in inability to continue performing their work.

- DOJ for its leadership and monitoring role in implementation of Section 508.

- The U.S. Architectural and Transportation Barriers Compliance Board (Access Board) for operationalizing E&IT accessibility concepts and for pioneering use of consumer-industry-government panels.

- The Access Board developed performance and functional standards and guidelines necessary for implementation of both Sections 255 and 508.
- Through its innovative use of government-consumer-industry panels, the Board modeled cooperative methods among government agencies and between the public and private sector for bringing these difficult and controversial rules to fruition.

- The Federal Communications Commission (FCC) for its leadership in telecommunications access and strong consumer outreach.
  - Through its jurisdiction over implementation of Section 255 and its efforts on behalf of closed captioning and video description, the FCC has become a prominent advocate for telecommunications and other E&IT access. The Commission also has endeavored to institutionalize input from the disability community by the creation of a consumer advisory committee.

- The Equal Employment Opportunity Commission for its strong and sophisticated statement of principle regarding its Web accessibility policies.

- The General Services Administration (GSA) for spearheading executive branch implementation of Section 508 and for providing and funding TA.
  - GSA plays a central role in the implementation of Section 508 through the Federal Acquisition Regulation and through its management of TA resources. But for many years before any E&IT access was mandated, GSA took the lead in providing TA under the two earlier versions of Section 508.
  - Other agencies will in time be added to this roster, but the context of their efforts will be materially different. For while they will always have the option to do the minimum the law requires or to venture further, they will be operating in an

environment of expectation where support and rewards for achieving E&IT accessibility will become part of the routine context of their work.

3. Keys to Success

Whatever may have been the nominal mandate of the law, the agencies that took action through most of the 1990s were working in an environment where their successes or failures had far fewer legal repercussions than will be the case henceforth. What accounts for the things they accomplished and how can the lessons of those accomplishments be applied in the changing legal and normative context of the E&IT accessibility era?

Contrary to initial supposition, agency mission does not appear to have been a significant predictor of commitment to the accessibility concept. Indeed, enthusiasm for E&IT access has not been apparent either in the internal arrangements or in the outreach activities of many of the federal agencies with specific responsibility in the disability programs area. Nor is it even clear that expertise on accessibility is concentrated in these agencies.

Our research, particularly our interviews with agency personnel, technology users, advocates, and observers of the governmental scene, strongly points to the conclusion that leadership within agencies, more than any other single factor, primarily accounts for their embrace of E&IT accessibility and for success in achieving it. The names of agencies are invariably joined with the names of specific individuals that come up again and again in discussions of history of accessibility with people who have witnessed or participated in it.

This leadership has taken different forms in different agencies, but in all cases seems to have involved the translation of life experience or personal commitments into sustained efforts in the workplace: efforts aimed at capacity-building, establishing the credibility of accessibility efforts,

demonstrating the viability of proposed solutions, and creating institutional supports for accessibility efforts.

4. Institutionalizing the Gains

One issue running through many of our discussions concerns how personal commitment and individual leadership can be parlayed into durable policy and institutional change. In the agencies cited above, accessibility concerns have been institutionalized to varying degrees. Such institutional arrangements and structures include establishing procedures for in-house review of software proposed for purchase by the agency, developing procedures for reviewing employees' reasonable accommodation needs for technology, or implementing procedures for producing documents in alternative formats or for accessible Web postings, or through a variety of other means. These internal rules and formal procedures are not self-executing or wholly autonomous, though. Without people dedicated to their perpetuation and success, we have no certainty these practices would endure.

No agency can be regarded as having made a smooth transition in everything related to E&IT access. This is not surprising because large federal agencies, and especially Cabinet departments, are anything but monolithic. The same Department of Education that has been in the forefront of providing internal access to its staff is also subject to criticism for having done little through Section 504, the ADA, or its contracting power to ensure that the "wiring" of America's schools (much of it with federal seed money) is done in a way that guarantees information access equality to all students.

In our interviews, the sense that the struggle for accessibility is ongoing and subject to gains and losses emerged as a recurring subtext. Internal political considerations, orientation of new managers, and constant outreach to others in the agency aimed at maintaining visibility and credibility all appear as recurring elements in the access process. Political adroitness—that most

intangible of qualities—has played a significant role in the success of accessibility efforts and advocacy. Timing and what can only be called luck have played their parts as well.

At the dawn of a new phase in the struggle for E&IT accessibility, a key question is whether the procedures would remain effective or the gains survive if their advocates disappeared. In some agencies, E&IT accessibility has been woven into the fabric of agency life sufficiently to withstand such a contingency. In other agencies continuity may be less certain.

Certainly the odds are better than they have been in the past. With the advent of Section 508 much greater institutionalization of E&IT accessibility will occur. Such institutionalization may in time reduce the need for individual leadership, but that will not happen any time soon. For the foreseeable future, leadership is still likely to make the difference between minimal, uninspired technical compliance and efforts that go beyond. To the degree that the necessary leadership can be identified and rewarded, the prospects for full institutionalization of access will be materially increased and significantly hastened.

In this connection, the installation of a new administration offers occasion for creative renewal of the nation's commitment to information equality. The recommendations made by NCD to the presidential transition team contained important suggestions along these lines.[63] The President's New Freedom Initiative reflects considerable awareness of the importance of E&IT (such as computers) in the lives of people with disabilities. The Administration's proposals have not yet focused on making the information infrastructure fully accessible so that the computers and other technology it hopes to provide can be put to their most effective uses, but administration budget proposals include significant sums for assistive technology research, which should contribute to greater accessibility of E&IT.

Many of those now involved in accessibility efforts are relatively new to this work, having been introduced to the subject through the 508 implementation process. As exposure to the issues and

policy options surrounding accessibility increases, new leadership is also likely to emerge in many settings.

B. Discrimination by Inadvertence

In his New Freedom Initiative, President Bush recently reminded us that Americans with disabilities have far lower incomes than other citizens.[64] A host of other reports and studies have documented comparable gaps in computer use, Internet access, education, and of course employment. It is a truism to say that a host of social and economic indicators follow income, but when the incomes of individuals are to any degree predictable as a function of their membership in identifiable demographic groups, serious questions are inevitably raised.

Disagreements about the extent and seriousness of this situation reflect different explanations of its causes. But one cause few would dispute is unequal access to information, which has led to unequal opportunity and limited participation in the school, the workplace, and the community. Ultimately, those who cannot access or use our nation's E&IT infrastructure are deprived of access to more and more of the information that is fast becoming the currency of our society, the commodity of its commerce, and the source of opportunity and achievement in all spheres of life. Denial of access to this technology is tantamount to denial of access to information itself.

With the role of technology in information access and use steadily increasing, the conclusion is unmistakable that those restricted in their access to and use of E&IT will be destined for a quality of life and an economic and social role far inferior to that which the average American considers a civil right, if not a birthright. From the standpoint of those sentenced to inferiority, it matters little whether the disparity is inadvertent or intentional.

Although technology and design have not yet come up with all the answers to E&IT accessibility, they have developed, tested, and refined a good many. Technology has created conditions in which the failure to incorporate accessibility, if no longer a matter of intention, is at least no longer inevitable either. Today, when equipment designers, software developers, or webmasters implement their devices and services, failure to include accessibility is a matter of indifference or ignorance. At some level, such indifference or ignorance becomes a matter of choice, and when it does, the line of intentionality has been crossed.

There may be no hostility in the failure or refusal to incorporate accessibility into product and services design. But where the possibility for incorporation of such features exists but is not pursued, some measure of responsibility must be accepted.

C. The Use and Misuse of Economics

Through civil rights laws, society has imposed what are regarded as reasonable accessibility requirements on government and the private sector. But these new rights and obligations have been defined and enforced in ways that depart significantly from the traditional civil rights model.

Traditional civil rights laws have never regarded cost as a defense or an excuse for noncompliance. Imagine how little patience society or the courts would have with the claim of a large national restaurant chain that hiring people from diverse cultural backgrounds was infeasible because training its employees in diversity or monitoring their conduct toward coworkers and customers would be too costly. Yet, the exceptions and defenses provided in our E&IT accessibility civil rights laws do essentially that by excusing noncompliance when it would represent an undue cost.

Such economic defenses reflect a balancing test new to our civil rights canon. The notion that accessibility should not be required if it is too costly is also remarkable for being posed in isolation from the related question of how much inaccessibility itself costs. If a cost-benefit balancing test is going to be used, the considerations being balanced ought to include the costs of access versus those of its absence. Regrettably, neither existing law nor available research methodologies will readily permit this. Determinations of undue cost burden arise from accessibility demands placed on particular entities or individuals while the costs of inaccessibility are largely hidden and borne by all. So long as the costs of accessibility are individualized but those of inaccessibility remain collective, the dice will remain loaded in a way that no law can fully redress.

The better question to ask, therefore, is how do the costs of accessibility compare with those of inaccessibility, and what represents the best strategy for allocating the costs of accessibility in ways that reflect the benefits it confers on us all? In the final analysis, one thing is very clear: whether we have broad-based accessibility or not, someone will pay—the only question is who?

D. An Imperfect Legal Model

Our laws have imposed a variety of obligations on business and government in the area of E&IT accessibility, but these are neither comprehensive nor consistent. Using the three civil rights laws we have been studying to illustrate this point, we find a patchwork of laws that cover certain equipment and services in some situations but not others, that utilize different economic defenses, that apply to different entities in different ways depending on whom they are dealing with, and that even define certain terms such as "telecommunications equipment" in different ways.

The existence of this inconsistent and fragmented patchwork of laws leads to the question whether we have a national E&IT accessibility policy at all? The regrettable answer is that we do

not. We have certain narrow contexts in which accessibility is required, but beyond the hope that ADA Sections 255 and 508 will eventually filter down to the design of all E&IT, we have no general policy favoring or supporting accessibility of E&IT.

Many factors account for this lack: attitudes about regulation, fears about costs, residual doubts about the capacities of people with disabilities, and agency jurisdictional lines that are not conducive to coordinated policy, to name a few of the most important. However, two factors appear to play a dominant role in explaining why we have no broad-based national E&IT accessibility policy. First, we have had no real national discussion about how much universal E&IT accessibility would really cost, and hence, we have reached no consensus about how such costs should be allocated. Second, we have had no means for identifying or dramatizing the real costs of inaccessibility for the millions of individuals it affects or for our society as a whole.

As indicated in the previous section, our current civil rights laws allocate the costs of E&IT accessibility on a case-by-case basis, looking no further than the particular manufacturer, service provider, or public accommodation being asked to provide a given service, or the individual federal agency contemplating its purchase.

Imagine what might have happened (or not happened) if we had implemented the national transportation policy of the interstate highway system through a funding formula that made individual drivers responsible for paying each time they drove, but exempted them from payment obligations if, according to some subjective or objective standard, they considered the costs too high.

The history of "universal service," which has been the central concept underlying telecommunications policy in this country, will further help make this case. Beginning with the passage of the Communications Act of 1934, our nation implemented a policy favoring universal access to basic telephone service for all Americans. This meant that despite variations in the cost

of providing such service between urban and rural areas, virtually all Americans (at least those who could do so with widely available mainstream equipment) could expect to have basic phone service at a reasonable monthly cost.

Although this system has come under increasing stress in recent years, it worked well for a very long time. But could it have worked without a national approach involving public-private partnerships to meet and allocate the costs of universal access? Could it have worked if, instead of devising a national strategy, we had remained preoccupied with the question of whether a particular phone company could or could not afford to string the wires to this town or to that farm or high-rise?

Our sense of the proper role of government has changed, and the complexity of the issues and interests involved is greater. But the point is clear that our approach to E&IT accessibility until now has not begun to make use of all available, historically proven strategies for bringing about greater universality and accessibility in E&IT design.

Lest it be supposed that such a goal can be achieved only by coercive measures, the means by which public policy has embraced and fostered the use of E&IT generally should be kept in mind. Taken together, the combination of means adopted in recent years to guide and promote the deployment and use of E&IT constitute a national E&IT policy even if no one has dared to invoke that term. Ranging from government funding of innovative research and practices in the E&IT field, to public investment in school computerization, to encouragement by a variety of tax-related and other means of private sector investment in technology, to the provision of leadership and marshaling of resources in various areas of E&IT development, to the preemption of state taxation of e-commerce, to the endorsement of standards-setting efforts aimed at ensuring interoperability of the communications system, to the active pursuit of a well-developed information strategy by the Federal Government—through all these means and more, we have

articulated and implemented a national policy favoring the deployment and use of E&IT. But not for people with disabilities.

E. Responsiveness of the Marketplace

Without strong, sustained, coordinated federal leadership (detailed in Chapter VI) in creating the conditions, incentives, and partnership opportunities necessary to make E&IT access a consensus value in our society, the marketplace alone is unlikely to take on the risk or the responsibility of going beyond "user-friendly" to accessible product design. Indeed, under current market conditions, companies that make extensive efforts to implement accessibility in highly competitive product lines may actually be penalized for their efforts, because the upfront costs associated with such efforts may put them at a real or perceived short-term price or profit disadvantage vis-a-vis their competitors.

That the E&IT marketplace cannot be expected to act on its own, given the current structure of the market, is also suggested by another analogy to physical accessibility. An individual who cannot enter or find accessible seating in a movie theater will either not go to the movies or attend them somewhere else. While the theater owner may not consider the loss of business from that individual and her family and friends worth worrying about, the loss of business is nevertheless real. But by contrast, there is no evidence to suggest that people with disabilities or their families and friends refrain from buying or using E&IT because it is inaccessible. Rather, as experience and innumerable conversations indicate, they buy what is available (precisely because it is all that is available) and make the best use of it they can, often asking others for help, frequently obtaining only a small part of the functional capabilities for which they paid.

For example, a blind person who enters a building with an inaccessible electronic directory has no option other than to use that directory. She may have to wait—perhaps a considerable time—for someone—very likely a stranger—to pass by so that assistance can be requested. She

may have to reveal to the stranger that she is looking for Dr. So-And-So (whose specialty may be embarrassing) or for Attorney Smith's office (whose specialty of bankruptcy is proudly proclaimed in the directory next to her suite number).

In this day and age, a large firm building a new headquarters would have ample opportunity to make the building accessible to its employees and visitors with physical disabilities. All else being equal, it would not choose to occupy an inaccessible building. But that same firm routinely buys computer and telecommunications systems that are inaccessible to some of its employees. It does so largely because such systems are all that exist and the need for a system transcends all other considerations. From the perspective of the equipment manufacturer, though, the inaccessibility has led to no loss of business.

If people with disabilities and their friends, families, and employers did, or could, withhold their business from inaccessible E&IT providers (as the government will soon do), the potential of the marketplace to meet their concerns might be harnessed effectively. In the absence of any realistic means for them to do so, and in the absence of any mechanism for reducing their E&IT costs commensurate with the performance and features that are inaccessible to them, the industry is under no economic pressure to change.

F. Emerging Trends

1. The Definition of E&IT

Even as our nation prepares to implement Section 508, the definition of E&IT used in this statute is becoming obsolete. As networked and "smart" appliances become more widespread, the line between traditional and new forms of E&IT becomes progressively more blurred. Nothing in

current law or policy addresses or even recognizes the implications of these developments for the way we live and the ways we think about and use information.

2. The Law

In an era when traditional distinctions between devices and products are steadily being erased, established ideas about what laws cover which subjects, what agencies have jurisdiction to regulate which technologies, and what subjects are or are not appropriate for regulation all require systematic rethinking. Today, in the networked office or wired home, distinctions between the telephone, television, and computer have effectively disappeared. Yet as we have seen, E&IT accessibility policy continues to operate on the basis of static definitions of specific devices and services.

Other changes in law have profound implications for the enforcement of even these increasingly inadequate current statutes. For example, the Supreme Court's recent decision in *Garrett v. University of Alabama*,[65] by blocking employment discrimination suits for money damages by individuals against states under Title I of the ADA, increases the reliance that people with disabilities seeking to vindicate E&IT access rights under that law must place on the federal enforcement agencies—who do retain the right to sue. On the basis of other recent decisions of the Supreme Court, a significant likelihood exists that the right to bring other kinds of Title I suits under the ADA, Title II suits against states under the ADA, and even Section 504 suits against state agencies may also be curtailed.

Moreover, where the possibility once existed for overturning such decisions through the political process in Congress, the constitutional rationale adopted by the Supreme Court in the succession of federalism cases decided over the past five years strongly suggests that Congress may no longer possess the authority to enact sweeping civil rights laws or to respond to public dissatisfaction with Supreme Court decisions. In such an unprecedented and complicated legal

environment, many of the advocacy strategies familiarly employed on behalf of E&IT access or other civil rights goals will require reassessment and modification.

Although no overall solutions exist to the complex and interconnected problems identified in this report, major practical steps are possible that would greatly improve the accessibility of our nation's E&IT networks. In our final chapter, we will discuss some of those solutions that our research and inquiries most strongly support.

Chapter VI

Recommendations

This chapter makes recommendations for the establishment and implementation of a national policy for accessibility of electronic and information technology (E&IT) in all sectors of American life. Short of such a national policy, it makes recommendations for how existing laws and policies that provide for accessibility in a narrower range of settings can be effectively implemented and more fully realized.

Recommendation 1

Incorporate E&IT Accessibility into the Agency Planning and Government-Wide Planning Processes at All Levels

1.1 By presidential executive order, promulgate and implement a national E&IT accessibility policy. The executive order should incorporate the following categories of information and action:

Explain the meaning of E&IT accessibility, making clear the distinctions between the accessibility and usability of mainstream E&IT devices and the ability of such devices to support the use of assistive technology add-ons or peripherals, and making clear that accessibility is preferred where available but that "interoperability" with assistive technology is required where direct accessibility is not achievable.

Document the role and importance of E&IT accessibility in facilitating education, employment, independent living, and improved quality of life.

Review the demographics of both aging and disability, and summarize the potential benefits to society of broad E&IT accessibility.

Summarize the current and foreseeable role of the Federal Government in connection with all aspects of E&IT and information policy in this country, including its role in funding research, supporting technology transfer, organizing government-industry partnerships and consortia, approving various kinds of E&IT for purchase with federal funds in various program settings, and analyzing the current authority of the executive branch to take discretionary action to enhance the availability and use of accessible E&IT.

Require each executive branch agency to fully review all laws and programs it administers and all statutes under which it operates to identify areas of law, regulation, or practice where barriers exist to the use of accessible E&IT or where measures could be taken to enhance the availability and use of accessible E&IT.

Revitalize the Interagency Disability Coordinating Council or create an appropriate new entity to marshal and provide technical assistance (TA) for all agencies in conducting this review, to receive periodic reports from these agencies at such intervals as the executive order may direct, and to operationalize the recommendations of the blue-ribbon commission discussed under recommendation 4.1 below.

1.2 GPRA

The Government Performance Results Act of 1993 (GPRA) requires federal agencies to engage in detailed, accountable strategic planning processes. Utilizing the opportunities afforded by GPRA, all agencies with responsibility in the civil rights area (including the large number of federal agencies that now have such responsibility under Section 508) should be required to incorporate goals, objectives, methods, and outcome criteria for development and use of accessible E&IT in their GPRA plans.

The precise content of these GPRA E&IT accessibility plans depends on the nature of each agency's work. At a minimum, each element of agencies' planning for the use of E&IT should include measures for ensuring the accessibility of such technology. Agencies with responsibility for civil rights enforcement of an external nature (that is, with responsibility for the practices of contractors or with oversight responsibility for regulated entities) should include in their plans the methods that will be used to monitor the performance of these outside entities. All agencies should also be expected to accept responsibility for implementation of accessibility goals with respect to their internal resources and practices.

Effective compliance with Section 508 will of course represent one major indicator of success, but incorporation of E&IT accessibility planning in agencies' GPRA plans will strengthen and institutionalize the self-evaluation and self-reporting processes envisioned by the Department of Justice's biennial agency self-evaluation questionnaire survey.

1.3 Information Policy and Information Management

Below the radar of strategic planning, agencies engage in a variety of ongoing and operational goal-setting and planning activities designed to develop and clarify their missions, to rationalize

managerial practices, and to provide continuity in their relationships with and outreach to coordinate agencies and nonfederal entities. Information policy and management are two of the most important among these planning issues.

All information planning and E&IT policy development should include and document due attention to the ways accessibility considerations will be integrated into agency policies, practices, and decisions. Appropriate guidance should be provided by the Office of Management and Budget (OMB) concerning the means for documenting this integration.

1.4 Government-Wide Information Planning

To the degree the Federal Government develops and implements government-wide policies concerning the use of E&IT, such policies and requirements must likewise provide for integration of accessibility goals and standards into all activities and decision making. Issues such as time lines, costs, confidentiality and privacy of information, and uniformity of practices are among the subjects in information management that raise accessibility concerns.

1.5 Federal Employee Training

Beyond the requirements of current law bearing on such matters as closed captioning and video description of training materials, and beyond the requirements of Section 508 concerning accessible training manuals or other instructional materials, all federal initiatives aimed at upgrading the skills of the federal workforce should include provision for supplementary training and resources in those cases where the use of assistive technology or other factors alters or individualizes the training process for employees with disabilities. Even the best training materials on a new mainstream software program cannot fully address the details of its use in conjunction with screen-reader, voice-input, or other specialized access software. Failure to

include provision for obtaining and integrating the additionally necessary training resources that may be required would result in frustration—despite compliance with Section 508 in the procurement process.

1.6 Alternative Measures When E&IT Access Is Not Possible

Agency strategic and operational plans should include provisions for how information access will be facilitated and ensured in those cases where accessible E&IT is not available. These plans should ensure the existence, documentation, publicizing, and sufficiency of such alternatives. The sufficiency of such alternatives should be evaluated according to a three-prong test including timeliness, completeness, and appropriateness to the nature of the information. For example, complex strings of computer code should not be provided orally to an employee who is blind under circumstances where the data cannot be captured for close study and later retrieval. Likewise, sensitive personnel information should not be conveyed to an employee who is deaf by being penciled on a blackboard in the federal building cafeteria.

Recommendation 2

Review the Federal Contracting Process to Encourage Diffusion of Accessibility

2.1 Grants and Contracts

With appropriate guidance from the General Services Administration (GSA), OMB, or other pertinent authorities, each agency should review the entire range of contracts and grants under which it administers and distributes federal funds to ensure that all possibilities that the law allows for encouraging or requiring E&IT accessibility practices on the part of contractors or grantees are fully utilized. Such a review involves an assessment of agency authority and practice

not only under Section 508 but also under Section 504, under the Americans with Disabilities Act (ADA), and under the discretionary authority of agencies to establish priorities and articulate evaluative criteria for competitive federal funding awards. Such assessment also requires careful analysis of the particular federal statute or program under which funds are being dispersed.

2.2 Model Contract Language

In order to prevent each agency from having to reinvent the wheel in its grant making and contracting activities, the Federal Government should develop model contract language for use in holding federal funds recipients to the highest possible standards of accessibility in their nonincidental use of E&IT.

2.3 Contractor and Grantee Technical Assistance

The government should ensure that all contracts subject to accessibility requirements include provisions for availability of appropriate TA to those called upon to meet accessibility expectations. Such TA (already available to a number of relevant constituencies under contracts let by GSA and the Access Board) should include resources pertaining to Section 508 as well as information pertinent to other sources of accessibility requirements.

Recommendation 3

Establish Federal Web Site Quality Control

3.1 Auditing Federal Web Sites

Assuming the accuracy of agency self-evaluations and of Department of Justice (DOJ) aggregate conclusions regarding the accessibility of federal Web sites, these self-evaluations will be conducted only once every two years, while Web sites change and can be updated almost daily. Individual agencies and DOJ should develop a system for random periodic audit of Web sites to ensure that standards of accessibility are being maintained. In the case of larger agencies with numerous Web pages, quality control may also involve developing new approaches to the oversight and management of pages, while in the case of smaller agencies, informal means may suffice.

3.2 Automate the Review Process

Identifying problems and implementing repairs are the two components of Web site accessibility checking. While programs and checklists exist for use in identifying accessibility problems and for pointing the way to appropriate repairs, such repairs may nevertheless be labor-intensive and may require the exercise of judgment as to which of several strategies is best. After assessment of all existing checklists, identification, and repair tools, and pursuant to research on testing methods, the government should seek to validate and deploy techniques for minimizing labor intensity of Web site maintenance.

Recommendation 4

Systematically Address the Question of Cost-Effectiveness

Cost and cost-effectiveness are not the same thing. Until the exigencies surrounding assessment of both are more fully addressed than they have been to date, development of public policy is likely to be hindered and delayed.

4.1 Presidential Commission

The President should appoint a national commission, including representatives of industry, government, consumers, economists, and demographers, to comprehensively study and report on the nature of all costs and benefits associated with both accessibility and inaccessibility. The commission should not necessarily be expected to reach definite conclusions as to the scope and nature of all costs and benefits, but it should set forth criteria, data collection and research methodologies, and evaluation criteria for doing so on a long-term basis after its work is completed. The matters to be addressed by this Commission, during a charter life that should be six months, should include the add-on costs to industry, government, and consumers of broad-based accessibility in E&IT design; the available alternatives for allocating such costs, including the availability of dedicated revenue streams for accessibility research and experimentation, tax subsidization, and other incentives; the establishment of E&IT accessibility as a top priority in the Federal Laboratory Consortium technology transfer programs; and the extent to which the costs of 508 compliance research and development should most appropriately be allocated between industry and government.

Following on the work of the Access Board in connection with its 508 final rule, the commission should identify the potential and demonstrable benefits of broad-based accessibility. The Access Board made a start in creating the methodology for assessing the benefits attributable to accessibility of federal E&IT, but this work must be continued and the questions must be posed in relation to the wider society. Such research, involving statistical extrapolation and modeling, case studies, and trends analysis, should address such matters as the number of people who might be expected to obtain, retain, or advance in employment as a result of the routine availability and

use of accessible E&IT; the accommodations, early retirement, worker compensation, and other cost savings that would accrue to business through E&IT accessibility; the number of people who might benefit in areas other than employment through the general inclusion of accessibility in the nation's E&IT; the reduction in public transfer payments for income support and personal assistance that could result from broad-based E&IT accessibility; the increased taxes that would be generated by heightened employment resulting from accessibility; the potential spin-off benefits in terms of new product development that might result from E&IT accessibility research; the possible impact on the competitiveness in world markets of U.S. firms if they were to assert a strong leadership position in accessible design; and such other and related matters as the commission may determine to be worth exploring.

The costs of inaccessibility are equally important. In some cases they will be the flip side of the benefits of access, but that is not their entire extent. Matters to be investigated here include the potential role of E&IT accessibility in easing worker shortages in certain skills areas, in reducing the need for recourse to temporary workers from abroad, and in easing inflationary wage pressures in the economy; the costs incurred by individuals themselves, by government, and by the nonprofit sector in providing services or assistance that would be reduced or rendered unnecessary by accessibility of E&IT; the nature and scope of other opportunity costs to individuals, government, and commerce associated with E&IT inaccessibility; and the existing allocation of all the costs, direct costs, and opportunity costs alike of inaccessibility in the E&IT sector.

4.2 White House Conference

As a kickoff to the work of the national commission, a White House summit on accessibility should be convened. This high-level summit should bring together representatives of all the key sectors—business, consumers, government, and researchers—to identify opportunities for

effective and innovative partnerships in accessibility policy, planning, research, and implementation throughout our economy and society.

Recommendation 5

Involve Consumers in the Accessibility Process

5.1 Consumer Advisory Panels

Subject to amendment of the law to allow members to be fairly compensated for their time, and subject to availability of a sufficient pool of people with the requisite knowledge and skills, agencies should be encouraged to appoint consumer advisory panels under the authority of the Federal Advisory Committee Act to advise and assist them in their efforts to achieve E&IT accessibility for themselves and for their constituencies. Such panels could identify accessibility problems at an early stage; warn agencies about pitfalls in the use of various technologies being contemplated for purchase; assist in testing procured hardware and software for accessibility before its acceptance; help agencies avoid 508 complaints by proactively responding to procedural or substantive concerns; and advise agencies on prospective measures that could improve the accessibility of various types of E&IT. The Federal Communications Commission (FCC) has recently established such a committee, and many agencies have experience with citizen involvement around particular projects or ongoing issues.

5.2 Consumer Support to Industry

The Federal Government, in partnership with the E&IT industry, should investigate means for training, positioning, and appropriately remunerating end-users with disabilities to assist industry to develop effective accessibility strategies, to anticipate access issues associated with new

technologies or designs, and to test and evaluate prototype devices and systems. End-users could participate in customer focus groups, meet with design and engineering staff, reflect community sentiments, serve as a sounding board, and exert a profound and positive influence on the course and rate of innovation and implementation.

Recommendation 6

Enrich the Available Resources for Implementation of Section 508

6.1 Additional Guidance

As pointed out in Chapter III, many key issues bearing heavily on the application and enforcement by individual federal agencies of Section 508 remain unresolved. The regulations thus far published to guide these agencies and the TA available to them do not begin to answer key questions about: the meaning of "available resources" under the undue burden exception, the relative weight to be given to accessibility in evaluating competitive bids vis-a-vis other contract requirements and performance criteria, the degree to which research and development costs associated with contract performance but not specifically procured in the contract can or should be included in allowable costs, and a host of other, equally critical matters.

GSA, the Access Board, OMB, and the Federal Acquisition Regulations Council need to undertake urgent collaboration to identify all such key implementation issues and provide meaningful guidance so far as the law and their discretion permit. It is not as if these issues can be avoided: With or without guidance they will be raised.

6.2 Undue Burden Auditing

A system for periodic auditing of agency undue burden filings should be developed. Section 508 makes no provision for the centralized collection, review, or availability to the public of these filings, but it contains no restriction on the adoption of such safeguards and checks either. A sufficient sample of such filings should be reviewed procedurally and substantively to determine both that the required documentation has been created and that the documentation supports the conclusion. From a substantive standpoint, the audits should also undertake to determine whether the conclusions are accurate as they relate to one or more components of the system or one or more of the requirements set forth in the applicable regulations. Finally, the review would serve to identify agencies utilizing the exception significantly more often, and to disclose differences in the way the law is applied that may emanate from differences in agency, culture, or management.

6.3 Verification of Agency Self-Evaluation Questionnaires

Apart from periodic review of the status of agency Web pages, DOJ should develop a procedure for verifying agency self-reports concerning their levels of and progress toward E&IT accessibility. These reviews should be conducted throughout the year and should include a large enough sample of agencies and subjects for results to be statistically significant.

6.4 Compulsory Technical Assistance

Although TA denotes a voluntary process, procedures should be developed for compelling agencies with prolonged and serious 508 compliance problems to accept TA targeted to their areas of weakness. The Federal Executive Service, the Council of Chief Information Officers, or existing TA contractors should be used when such interventions are required.

6.5 Litigation Posture

DOJ should indicate how it will proceed in situations where it is called on to defend a federal agency in court against a suit brought under 508 where DOJ possesses independent knowledge through the agency self-evaluation process or otherwise, that the agency is out of compliance with Section 508. Federal agency officials, potential complainants, and the courts need to know how the Department proposes to handle such delicate situations.

6.6 Reduce the 508 Exemptions Granted for Intra-Federal-Agency Contracts

A number of federal executive branch agencies contract with the Government Printing Office (GPO) to manage their Web sites or for performance of other E&IT-related services. As an "instrumentality" of Congress, GPO is not currently subject to Section 508.

Federal agencies covered by Section 508 cannot evade by contract the obligations they would bear if managing their Web sites in-house. While GPO has expressed its intention to comply with Section 508, it remains the responsibility of each executive branch agency to make certain its Web sites comply with the law. The relationship between covered and noncovered agencies exemplified by these contracts between executive branch agencies and GPO poses potential difficulties. DOJ should therefore clarify that when GPO enters into contractual relationships that would subject it to the requirements of Section 508 if it were not an exempt congressional agency, GPO is required to comply with the requirements of Section 508 in its fulfillment of tasks under the contract or memorandum of understanding.

Recommendation 7

Record-Keeping and Data Collection

With the implementation of Section 508, federal agencies have a unique but short-lived opportunity to develop usable and informative cross-agency databases and information resources. Section 508 imposes the same requirements on everyone, utilizes the same nomenclature with every covered agency, and creates the prospect for a new level of shared experience among agencies in civil rights enforcement.

The opportunity for rationalizing informational categories and data collection and sharing techniques Section 508 has created should not be allowed to slip by.

Cumulative and comparative process information such as number and disposition of complaints, number and nature of undue burden filings, and number of employees or members of the public utilizing accessible E&IT are among the important categories of information that should be collected and aggregated. Qualitative and outcomes research should also be possible in ways that the structure of other civil rights laws have not previously made possible. Consistent with applicable privacy, informed consent, paperwork reduction, human subjects research, and other relevant considerations, efforts should be immediately instituted to develop, field test, disseminate, and analyze appropriate data collection and reporting instruments.

Recommendation 8

Statutory Review

In conjunction with or as an element of the work of the commission proposed under Recommendation 4.1, the President and Congress should establish a joint blue-ribbon

commission (or should designate an existing entity such as the National Council on Disability) to examine barriers to effective implementation of E&IT accessibility that may exist in current federal laws, and to recommend changes in law that will foster E&IT accessibility in the public and private sectors. Issues to be considered should include requiring that all federal documents be made available in machine-readable formats and clarifying the legality of such formats for all purposes; requiring states to comply with Section 508 as a condition for the receipt of federal funds under all disability-related federal/state programs and under Medicaid; reviewing the Internal Revenue Code to ensure that all existing business tax incentives relating to research and development cover E&IT access-related research; reviewing all federal grants and initiatives in the E&IT area to ensure that accessibility is included in their scope and priorities; reviewing the copyright law to identify possible incentives for the use of machine-readable formats by publishers; reviewing the antitrust laws to determine the need for changes that would facilitate development of industry consortia around E&IT accessibility research and product deployment; extending the jurisdiction of the FCC, the Consumer Product Safety Commission, or other entities to facilitate dialogue between industry and consumers regarding the E&IT characteristics of traditionally stand-alone consumer and home appliances; reviewing the rules governing the Medicaid and State Children's Health Insurance Program to ensure that initiatives such as those proceeding from the Olmstead case, which are designed to enable as many persons as possible to avoid institutionalization and live in the community, will include funding for E&IT accessibility devices and training needed to maximize autonomy and self-care; and reviewing the nomenclature used to describe E&IT under all laws and programs so that confusion and inconsistency in the cross-agency, cross-program use of terminology can be minimized or avoided.

Recommendation 9

Reinvigorate the Quality and Focus of ADA Enforcement

9.1 E-Commerce, Public Terminals, and the Internet

Through suitable regulations, interpretive guidance, or case initiation, DOJ should take immediate and meaningful steps to set forth its views concerning the applicability of Title III to the Internet. Choosing between its own accessibility checklists, the most up-to-date guidelines published by the World Wide Web Consortium Web Accessibility Initiative, and the functional and performance requirements embodied in the Access Board's 508 final rule, the Department should promulgate its chosen standards for defining and evaluating Web site accessibility so that its assertion of ADA jurisdiction cannot be resisted by allegations of vagueness or imprecision.

DOJ should also promulgate standards and requirements for the accessibility of public terminals including electronic building directories, point-of-sale card readers, library terminals, and similar devices.

9.2 EEOC

The Equal Employment Opportunity Commission (EEOC) should update its TA and advisory materials for private sector employers covered by Title I of the ADA to reflect the placing of a high priority on E&IT accessibility, to explain the meaning and importance of this concept in ways that clarify how it differs from and affects the reasonable accommodation model, and to expand lists of organizational and TA resources provided to employers so as to include entities and programs that specialize in E&IT accessibility.

The EEOC should also issue a guidance on the interaction between Sections 508 and 501, making clear that federal agency violation of Section 508 will ordinarily be regarded as of high evidentiary value in determining the validity of discrimination complaints by federal employees against such agencies. The guidance should further indicate under what if any circumstances violation by a federal agency of Section 508 will constitute a per se violation of Section 501.

Recommendation 10

Intensify Monitoring and Enforcement Under Section 255

10.1 FCC Enforcement

The FCC should indicate what features and functions of the forthcoming new generation of wireless telecommunications/customer premises equipment (CPE) it regards as capable of being made fully accessible under current conditions. It should be as specific as possible in putting CPE manufacturers and vendors on notice concerning its reasonable expectations in this area.

10.2 Remedies for Violation of Section 255

The FCC should issue a legal opinion concerning how it would react and what position it would take if a consumer attempted to bypass the Section 255 complaint process by bringing suit in federal court for discrimination under the "common carrier" provisions of the Federal Communications Act. End-users and industry alike need to know the Commission's views concerning the availability and propriety of such procedures, particularly if the Commission does not intend to impose significant penalties or sanctions for noncompliance with the law.

10.3 Market Monitoring Reports

In conjunction with the Access Board, the FCC should institutionalize regular, periodic preparation and publication of the telecommunications Market Monitoring Report. As a vehicle for identifying product lines, services, or telecommunications industry sectors where problems exist, these reports can be an invaluable tool for guiding the deployment of TA and other resources. Particularly if the FCC intends to minimize the use of the adversary process as a means for bringing about progress in telecommunications accessibility, continued use of these reports becomes all the more essential.

10.4 Definition of Covered Telecommunications Services

The FCC should formally indicate the results of its inquiries and deliberations into the permissible scope of Section 255's coverage of telecommunications services. If the Commission determines that it has the legal authority to include so-called "information service" under the scope of Section 255's coverage of telecommunications services, it should immediately proceed to institute the rulemaking process needed to accomplish this clarification.

If, on the other hand, the Commission determines it lacks legal authority to broaden the definition of telecommunications services under Section 255 sufficiently to encompass these "information services," it should join with consumer representatives and enlightened industry leaders to propose remedial legislation to Congress. By the same token, if the Commission determines that it does possess the authority to broaden the definition but declines to exercise its discretion to do so, industry and consumers need to know this as well so they can begin considering options for legislative reform.

Conclusion

The convergence of technology, attitudes, demographics, and law has created unprecedented opportunities for eliminating one of the most significant sources of inequality in our society. Although the precise details and the most appropriate allocation of costs and benefits are not in all cases clear, the value and wisdom of making E&IT accessible for all can hardly be disputed. People of good will are working in partnership and committed to overcoming the obstacles that can bring about advances which will dramatically improve the future for all of us. The moment and the means are at hand.

Endnotes

1. Promises to Keep: A Decade of Federal Enforcement of the Americans with Disabilities Act (2000); Back to School on Civil Rights: Advancing the Federal Commitment to Leave No Child Behind (2000); Enforcing the Civil Rights of Air Travelers with Disabilities: Recommendations for the Department of Transportation and Congress (1999). Washington, DC. National Council on Disability.

2. The Technology-Related Assistance for Individuals with Disabilities Act of 1988 P.L. 100-407, as amended by P.L. 103-218 of 1994, and as revised by the Assistive Technology Act of 1998 P.L. 105-394 (see Sec. 3 (3)).

3. 36 C.F.R. 1194.4.

4. 2000 National Organization on Disability /Harris Survey of Americans with Disabilities (National Organization on Disability, 2000).

5. e.g., Executive Order 13035, as amended February 12, 2001.

6. Electronic and Information Technology Accessibility Standards Economic Assessment, prepared by the EOP Foundation (Access Board, November 2000) (currently available at www.access-board.gov/sec508/assessment.htm).

7. P.L. 90-480 (1968).

8. The Rehabilitation Act of 1973, P.L. 93-112.

9. P.L. 93-112, Sec. 504, codified at 29 U.S.C. Sec. 794.

10. e.g., *Nelson v. Thornburgh*, 567 F. Supp. 369 (E.D.Pa. 1983), aff'd, 732 F. 2d 147 (3d Cir. 1984), cert. denied, 469 U.S. 1188 (1985) (state required to provide readers to blind employee).

11. P.L. 101-431 (1990).

12. P.L. 99-506, Sec. 603(a), as amended by P.L. 102-569, Sec. 509(a), as further amended by P.L. 105-220, Sec. 408(b), codified at 29 U.S.C. Sec. 794d. The statute has received additional minor amendments not discussed here, including most recently by P.L. 106-246, Sec. 2405, which modified the effective date for the right to file complaints under the act.

13. The Americans with Disabilities Act of 1990, P.L. 101-336, codified at 42 U.S.C. Sec. 12101 et seq.

14. P.L. 104-104, Sec. 255, codified at 47 U.S.C. Sec. 255. Also the guidelines developed by the Access Board and adopted by the Federal Communications Commission to implement the statute, 36 C.F.R. Part 1193.

15. The Workforce Investment Act of 1998, P.L. 105-220, Sec. 408(b), "Electronic and Information Technology," codified at 29 U.S.C. Sec. 794d.

16. 42 U.S.C. Secs. 12111 (9 and 10) and 12113.

17. *Terrell v. USAIR*, 132 F. 3d 621 (11th Cir. 1998) (denial of access to modified keyboard not a violation where employee not required to type in its absence).

18. *Kiel v. Select Artificials Inc.*, 169 F. 3d 1131 (8th Cir.), cert. denied, 120 S. Ct. 59 (1999) (employer who restructured job to eliminate use of telephone did not violate reasonable accommodation obligation by refusing to furnish teletypewriter).

19. 28 C.F.R. Sec. 35.104; also Sec. 35.160.

20. *Carr et al. v. Kolodney et al.* (Cause No. C96-5065RJB W.D. Wash. 1998) (case dismissed August 12, 1998, without decision on the merits after state withdrew plans to implement kiosk system).

21. 28 C.F.R. Sec. 35.105.

22. These finding letters are collected on the Project EASI Web site at www.rit.edu/~easi/law.htm#case.

23. Letter of Findings, CSU Long Beach, April 20, 1999 (USDOE OCR Docket No. 09-99-2041).

24. 28 C.F.R. Sec. 36.303.

25. 42 U.S.C. Sec. 12181 (7).

26. e.g., *Parker v. Metropolitan Life Ins. Co.*, 121 F. 3d 1006 (6th Cir. 1997).

27. e.g., *McNeil v. Time Ins. Co.*, 205 F. 3d 179 (5th Cir. 2000) (insurance companies' practices as well as their physical location covered by Title III); *Carparts Distribution Center Inc. v. Automotive Wholesalers' Assn.*, 37 F. 3d 12 (First Cir. 1994).

28. e.g., Smith-Barney settlement (1995).

29. Letter of September 9, 1996 (US DOJ ADA Core Policy Letter 204; currently available at www.usdoj.gov/crt/foia/cltr204.txt).

30. *Hooks v. OKBridge* (U.S. Court of Appeals 5th Cir., Docket No. 99-50891).

31. The Hooks case was decided with an unpublished opinion, issued by the court August 21, 2000.

32. 36 C.F.R. Part 1194.

33. e.g., Fleet Bank press release of February 28, 2001 and also Bank of America press release and agreement (issued May 26, 2000); also U.S. Bank Installs Minnesota's First Voice-Guided ATMs for Visually Impaired, by Karen Mills (Associated Press dispatch, August 21, 2000); also Wells-Fargo press release of April 19, 2000, with talking ATMs announced as up and running in California).

34. 255, Access by Persons with Disabilities, 47 U.S.C. Sec. 255.

35. FCC Notice of Inquiry (adopted July 14, 1999, Docket No. WT 96-198); also generally, FCC Report on High Speed and Advanced Telecommunications (August 3, 2000).

36. Preamble to 36 C.F.R. Part 1194 (particularly para. 77).

37. Sec. 508 (f)(2).

38. Assessing Egovernment: Internet Service Delivery by State and Federal Government: Egovernment, the Internet, Democracy and Service Delivery by State and Federal Governments, by Darrell M. West (Brown University, 2000).

39. www.eeoc.gov/style/about.html

40. Falling Through the Net: Toward Digital Inclusion (U.S. Department of Commerce 2000).

41. 28 CFR Secs. 35.104, 35.160, and 36.303.

42. Revision of ADA and Architectural Barriers Act Accessibility Guidelines (currently available at www.access-board.gov/ada-aba/status.htm).

43. Studies of the applicability of the ADA to the Internet include ADA and the Internet: Must Websites Be Accessible?, by Dana Whitehead McKee and Deborah T. Fleischaker, 33 Md. B.J. 34 (2000); also Applying the ADA to the Internet: A Web Accessibility Standard, by Cynthia D. Waddell (1998) (currently available at www.icdri.org/applying_the_ada_to_the_internet.htm).

44. Information Technology and People with Disabilities: The Current State of Federal Accessibility, presented by the Attorney General to the President, April 2000 (includes findings based on the Department's use of its own Web accessibility checklist to assess the performance of other federal agencies).

45. Reasonable Accommodation Information Reporting Form (currently available at www.eeoc.gov/docs/eeocprocedures-form3.html).

46. EEOC Enforcement Guidance: Reasonable Accommodation and Undue Hardship under the Americans with Disabilities Act (March 1, 1999) (currently available at www.eeoc.gov/docs/accommodation.html). Policy Guide on EO 13164: Establishing Procedures to Facilitate the Provision of Reasonable Accommodations (October 20, 2000) (currently available at www.eeoc.gov/docs/accommodation_procedures.html).

47. P.L. 102-569; 20 U.S.C. Sec. 1401 (1).

48. Policy Guide on Executive Order 13164: Establishing Procedures to Facilitate the Provision of Reasonable Accommodations (October 20, 2000) (currently available at www.eeoc.gov/docs/accommodation_procedures.html).

49. 66 FR 7165-68 (January 22, 2001) (proposed rule); - Federal Register - (April 25, 2001, FAR Case No. 1999607) (for final rule).

50. Sec. 508 (d).

51. Sec. 508 (c).

52. see note 4.7, supra.

53. Section 508 Self-evaluation Questionnaire for Designated Agency Officials.

54. Access Board and Federal Communications Commission, Market Monitoring Report on Accessible Telecommunications (currently available at www.access-board.gov/telecomm/marketrep/index.htm).

55. Strategic Plan (currently available at www.eeoc.gov/plan/single.html).

56. Sec. 508 (f)(2). Paragraph (3) explains the rules governing civil actions in court under 508.

57. Sec. 508 (a)(1)(A).

58. Re-charting The Course: Turning Points: The Third Report of the Presidential Task Force on Employment of Adults with Disabilities (presented to the President, December 2000).

59. 36 C.F.R. Sec. 1194.3 (b).

60. e.g., *Zamora-Quezada v. HealthTexas, Medical Group of San Antonio*, 34 F. Supp. 2d 433 (W.D. Tex. 1998) (receipt of Medicare funds by HMO made its operations subject to Rehabilitation Act); *Dorer v. Quest Diagnostics Inc.* (laboratory that received federal funds

covered by law) 20 F. Supp. 2d 898 (D. Md 1998); *Sharrow v. Bailey*, 910 F. Supp. 187 (MD PA 1995).

61. This one instance of application of the provisions of Section 508 to states, as a condition for the receipt of federal funds, appears to derive from an Education Department interpretation of the Rehabilitation Act and the Assistive Technology (AT) Act together. It has been embodied in at least two letters from officials of the National Institute on Disability and Rehabilitation Research, which administers AT Act funds, but has not been formalized in regulations.

62. www.fcc.gov/Bureaus/Common_Carrier/Notices/2001/fcc01143.txt.

63. Investing in Independence: Transition Recommendations for President George W. Bush (National Council on Disability, January 2001) (currently available at www.ncd.gov/newsroom/publications/bush.html).

64. Fulfilling America's Promise to Americans With Disabilities, Foreword by President George W. Bush, To the President's New Freedom Initiative (currently available at www.whitehouse.gov/news/freedominitiative/freedominitiative.html).

65. *Garrett v. Board of Trustees of the University of Alabama*, - U.S. - (2001) (currently available at www.nls.org/courts/supct.htm).

Appendix

Mission of the National Council on Disability

Overview and Purpose

The National Council on Disability (NCD) is an independent federal agency with 15 members appointed by the President of the United States and confirmed by the U.S. Senate. The overall purpose of NCD is to promote policies, programs, practices, and procedures that guarantee equal opportunity for all individuals with disabilities, regardless of the nature or significance of the disability; and to empower individuals with disabilities to achieve economic self-sufficiency, independent living, and inclusion and integration into all aspects of society.

Specific Duties

The current statutory mandate of NCD includes the following:

- Reviewing and evaluating, on a continuing basis, policies, programs, practices, and procedures concerning individuals with disabilities conducted or assisted by federal departments and agencies, including programs established or assisted under the Rehabilitation Act of 1973, as amended, or under the Developmental Disabilities Assistance and Bill of Rights Act; as well as all statutes and regulations pertaining to federal programs that assist such individuals with disabilities, in order to assess the effectiveness of such policies, programs, practices, procedures, statutes, and regulations in meeting the needs of individuals with disabilities.
- Reviewing and evaluating, on a continuing basis, new and emerging disability policy issues affecting individuals with disabilities at the federal, state, and local levels and in the private sector, including the need for and coordination of adult services, access to personal assistance services, school reform efforts and the impact of such efforts on

individuals with disabilities, access to health care, and policies that act as disincentives for individuals to seek and retain employment.

- Making recommendations to the President, Congress, the Secretary of Education, the director of the National Institute on Disability and Rehabilitation Research, and other officials of federal agencies about ways to better promote equal opportunity, economic self-sufficiency, independent living, and inclusion and integration into all aspects of society for Americans with disabilities.
- Providing Congress, on a continuing basis, with advice, recommendations, legislative proposals, and any additional information that NCD or Congress deems appropriate.
- Gathering information about the implementation, effectiveness, and impact of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.).
- Advising the President, Congress, the commissioner of the Rehabilitation Services Administration, the Assistant Secretary for Special Education and Rehabilitative Services within the Department of Education, and the director of the National Institute on Disability and Rehabilitation Research on the development of the programs to be carried out under the Rehabilitation Act of 1973, as amended.
- Providing advice to the commissioner of the Rehabilitation Services Administration with respect to the policies and conduct of the administration.
- Making recommendations to the director of the National Institute on Disability and Rehabilitation Research on ways to improve research, service, administration, and the collection, dissemination, and implementation of research findings affecting persons with disabilities.
- Providing advice regarding priorities for the activities of the Interagency Disability Coordinating Council and reviewing the recommendations of this council for legislative and administrative changes to ensure that such recommendations are consistent with NCD's purpose of promoting the full integration, independence, and productivity of individuals with disabilities.

- Preparing and submitting to the president and Congress an annual report titled *National Disability Policy: A Progress Report.*

International

In 1995, NCD was designated by the Department of State to be the U.S. government's official contact point for disability issues. Specifically, NCD interacts with the special rapporteur of the United Nations Commission for Social Development on disability matters.

Consumers Served and Current Activities

Although many government agencies deal with issues and programs affecting people with disabilities, NCD is the only federal agency charged with addressing, analyzing, and making recommendations on issues of public policy that affect people with disabilities regardless of age, disability type, perceived employment potential, economic need, specific functional ability, veteran status, or other individual circumstance. NCD recognizes its unique opportunity to facilitate independent living, community integration, and employment opportunities for people with disabilities by ensuring an informed and coordinated approach to addressing the concerns of people with disabilities and eliminating barriers to their active participation in community and family life.

NCD plays a major role in developing disability policy in America. In fact, NCD originally proposed what eventually became the Americans with Disabilities Act. NCD's present list of key issues includes improving personal assistance services, promoting health care reform, including students with disabilities in high-quality programs in typical neighborhood schools, promoting equal employment and community housing opportunities, monitoring the implementation of ADA, improving assistive technology, and ensuring that those persons with disabilities who are members of diverse cultures fully participate in society.

Statutory History

NCD was initially established in 1978 as an advisory board within the Department of Education (P.L. 95-602). The Rehabilitation Act Amendments of 1984 (P.L. 98-221) transformed NCD into an independent agency.

AU S. GOVERNMENT PRINTING OFFICE 2001-480-816/40255

National Council on Disability

1331 F Street, NW, Suite 1050

Washington, DC 20004

Media Mail

Postage and Fees Paid

NCD

Permit No. G-279

Official Business

Penalty for Private Use, $300

Council for Exceptional Children
1920 Association Dr
Reston VA 20191-1545

CEC

ADDRESS CORRECTION REQUESTED